

**PERSONNEL ACCOUNTING, CLASSIFICATION AND
DISTRIBUTION IN THE U.S. NAVY**

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*Thesis
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PERSONNEL ACCOUNTING, CLASSIFICATION
AND DISTRIBUTION IN THE U.S. NAVY

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Introduction

The object of the study is to determine the effect of the various factors on the rate of growth of the population of the country.

The study is divided into two parts: the first part deals with the general principles of the study, and the second part deals with the specific details of the study.

The first part of the study is devoted to a general discussion of the factors which influence the rate of growth of the population of the country.

The second part of the study is devoted to a detailed examination of the effect of the various factors on the rate of growth of the population of the country.

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PREFACE

The purpose of this thesis is to present a single source of information, geared to proper levels, concerning the techniques in accounting, classification and distribution of enlisted personnel in the United States Navy. It has been prepared to assist the average Naval officer to understand better the Navy's present personnel accounting system, the Navy's methods of classification and distribution. Through a better understanding, it is hoped that he will be able to contribute to the solution of the many intricate and difficult problems encountered in these three phases of personnel control. It may also be of value in the familiarization of midshipmen with personnel administration and control.

There are many factors which must be considered in the study of personnel control. It is first necessary to consider the nature of Navy jobs. Next, it is necessary to provide for classification of the men who are to work at these jobs, in order that the best man may be selected

The purpose of this study is to present
 a new method of information, based on the
 use of computers, and to demonstrate its
 effectiveness in the field of information
 science. The study is divided into three
 parts. The first part is a review of the
 literature on the subject. The second part
 is a description of the method. The third
 part is a discussion of the results.

for a specific job. The next, and probably the most difficult step, is how to assign the proper man to the job.

The three phases: accounting, classification and distribution, have been studied separately. To maintain personnel control, at all times, it is essential that accurate and timely records be available. This is the field of personnel accounting. It is utilized in personnel classification and distribution. Classification is the description and cataloging of personnel, in order that they may be selected for the right job. The next logical step is the assignment of personnel to duties in accordance with their classification. Some comparisons will be made with the techniques used in the Army and Marine Corps. Only the enlisted personnel field has been covered. In theory, it is possible to use the same techniques for both officer and enlisted personnel. The Navy is working toward this goal, but it will take considerable study and time to attain it. Some evaluation is made of present methods and policies of the Navy. Future probable developments and subjects for further research are indicated.

In the preparation of this thesis, a large

The first part of the report, which is the most important, is the one which deals with the general principles of the subject. It is in this part that the author sets out his own views on the subject, and it is here that he makes his most important contributions to the literature.

The second part of the report, which is the most interesting, is the one which deals with the application of the principles to the study of the human mind. It is in this part that the author shows how the principles can be used to explain the behavior of the human mind, and it is here that he makes his most important contributions to the literature.

The third part of the report, which is the most practical, is the one which deals with the application of the principles to the study of the human body. It is in this part that the author shows how the principles can be used to explain the behavior of the human body, and it is here that he makes his most important contributions to the literature.

The fourth part of the report, which is the most theoretical, is the one which deals with the application of the principles to the study of the human soul. It is in this part that the author shows how the principles can be used to explain the behavior of the human soul, and it is here that he makes his most important contributions to the literature.

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number of Bureau of Naval Personnel publications have been studied. In addition, some time was spent in the Bureau attending conferences on personnel problems and in interviewing key personnel engaged in these phases of personnel work. Volumes could be written on each one of these three subjects and still perhaps not give a pure and complete solution to the many intricate problems. In this thesis, no claim is made to the proper solution of these problems. However, the writer has drawn on his twenty years of experience as a Naval Officer, many of which have been spent in handling personnel, to present a study of these problems and perhaps somewhat to clarify them.

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CHAPTER I

PERSONNEL ACCOUNTING IN THE U. S. NAVY

CHAPTER I

THE GROUND OF ACCOUNTING IN THE U. S. NAVY

CHAPTER I
PERSONNEL ACCOUNTING IN THE U. S. NAVY

Introduction

Personnel administration and control is maintained through accurate and timely personnel records and reports. The field of personnel accounting covers such data as the number of personnel in the Navy as a whole, the number in the various ratings, the number attached to the various ships and stations, and the number in a transit status. Such data as this is essential in order that a constant control of personnel may be maintained.

It is desirable to keep the accounting systems as simple as possible, to reduce paper work and to reduce the number of men required to do the accounting. The system is somewhat simplified by de-centralizing the accounting, so that the detailed work is done by the individual units of the naval establishment. The data must be available in a practical form, through the various echelons, from a single ship or station to the Bureau of Naval Personnel. The data furnished by personnel accounting is of vital importance to the

Unit Commander, the Type Commander, the Fleet Commander, and to the Chief of Naval Personnel. This data is used for purposes of planning, distribution, training, and for all the phases of personnel control. It is obvious that this accounting must be very accurate and up-to-date. In some cases, the personnel status must be known on a day to day basis.

Late in 1945, the Navy's personnel accounting system was revised. Previously each ship and station was required periodically to prepare a series of lengthy statistical reports. These reports were based on a system of cards and reports maintained by each unit. There was a Muster Card, a Longevity Card, an Allowance Card, an Expiration of Enlistment Card, a Special Qualifications card, and a Report of Change Card. From these cards the following personnel reports were made:

1. Muster Roll--a quarterly report of all enlisted personnel actually on board, giving the name, rate, service number and other miscellaneous data.
2. Report of Change--a monthly report of all changes to the muster roll. This report was also required on sailing from a port. This was necessary in order that an accurate

muster would be available, in the Bureau, in event the ship was lost at sea. During war time, ships were required to submit copies of this report to several ships in company, to insure that an accurate muster was available in event of an emergency.

3. Recapitulation Sheet--a quarterly report which summarized the various changes due to receipt, transfer, advancement in rating, re-enlistment or discharge.
4. Report of Enlisted Personnel--a monthly report showing the allowance, on board, expected gains and losses, broken down into the various rates and the anticipated status several months in advance.
5. Receipt and Transfer Book--a record of each receipt and transfer, as it occurred.
6. Compliance Report--a report of compliance upon completion of a transfer.

The above cards and reports required considerable detailed work. The system was difficult to administer in large units, especially those which had a constant turn over of personnel, such as a Receiving Station. In addition to the difficulties of administration, the whole system was inaccurate and exceedingly slow. It could not

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furnish all the data required for personnel control. In some cases, by the time the data was compiled and sent to the Bureau, it was obsolete and of no value. It put a very heavy work load on a personnel office at the end of each month, each quarter, and each time just prior to sailing. The enormous expansion of the Navy, during World War II, brought all these undesirable features to the fore and brought out the necessity of developing a new accounting system. Experience in civilian industries had indicated that similar accounting problems had been encountered, and that conversion to mechanical methods had demonstrated that mechanical methods were by far the most practical.

The new Navy Personnel system of accounting by mechanical methods was first placed on a trial basis. The first or pilot installation was authorized in Commander Service Force, Pacific, in 1944. Prior to this time the feasibility of mechanical machines was tested at Training Centers and Receiving Stations and had proved that the mechanical system would be of great value in Navy personnel accounting. Upon completion of trials and when it became apparent that the mechanical system was adaptable for Navy personnel accounting, the instructions for the preparation of documents having to do with

the system were promulgated by the Bureau of Naval Personnel in March, 1946. The target date for conversion to the new system was 1 October, 1946. Although certain difficulties have been encountered, the complete conversion of Naval Personnel accounting to mechanical methods has now been accomplished.

As this system is now in use throughout the Naval Establishment, a detailed description of the development, the mechanics and the operational use of this system will be made.

Development and Mechanics of the New System

The equipment used by the Navy in its Machine Record Installations is leased from the International Business Machines Corporation. Employees of this company are available at the various stations, where the equipment is installed, to insure the equipment is in good working condition.

Similar machines are made by Remington Rand and National Cash Register Company, but their equipment has not been used so far in the Navy's personnel accounting system.

The basis of the modern I.B.M. equipment, used in the accounting system, was evolved from the experiments and accomplishments of a Dr. Herman Hollerith. Dr. Hollerith, a distinguished statistician, had been employed by the United States

Government in compilation of the 10th Census.

From his personal experience with the Census of 1880, Dr. Hollerith was fully aware of the enormous difficulty the Census Bureau was having in reducing the mountainous facts gathered by Census takers into usable form. The facts had been collected, as the law provided, in 1880, but five years later the Bureau was still struggling to compile them.

Considering the rate at which the country was growing, it was evident that the time was near when, under existing methods, it would be time to take the next Census before the last one had been published. Dr. Hollerith set to work to find a way by which all this recording, tabulating and analyzing of facts could be done by machines.

The 10th Census report was finally completed in 1887 with the 11th Census only three years away. By that time, Dr. Hollerith had worked out the essential features of his mechanical system for recording, compiling and tabulating Census facts. His system was fundamentally simple. It consisted essentially of recording the facts of any given situation, for example the Census description of one person, by punching holes according to a definite pattern in a piece of paper. The original plan

used strips of paper, but Dr. Hollerith soon found that it was better to use a separate card of standard size and shape for each "unit situation".

A pre-arranged code was assigned a definite meaning to each separate position on the card. A hole punched in that position would then actuate electrically operated mechanisms, which dealt with the particular data which that position represented, functioning as a counting or adding device, either singly or in various combinations, as a result of the material required.

After extensive testing and research by a special commission, the Hollerith system was officially adopted by the United States Government for compiling the Census returns. It had been found that the Census data could be tabulated by Hollerith machines in under one-eighth of the time required by any other available method. This meant that the Census of 1880, which was completed in 1887, would have been completed in 1881 had the Hollerith system been in use at that time.

The success of the Hollerith tabulating method in compiling data for the United States Census, attracted wide-spread attention, both in this country and in foreign countries. The stimulus had been given for rapid growth and development of

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The fifteenth card was found to be "unintelligible".
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The twentieth card was found to be "unintelligible".

accounting and tabulating machines.

Today, machine methods of accounting are the accepted practice in private business and industry. The United States Government, however, is still the best customer for machine accounting products. The U.S. Government's social security installation of accounting machines in Baltimore is possibly the largest tabulating unit in the world.

The moment an organization of any kind has grown beyond the point where one man can carry all its essential facts in his head, a need begins for mechanical methods of organizing these facts, so that the organization can be effectively managed. With each successive increase in the size of an organization, the demand for more speed, economy and precision in dealing with the increasing volume of essential facts, becomes more insistent. The Navy was confronted with this need in 1941 when its rapidly expanding numbers presented a tremendous personnel accounting problem. The introduction of Machine Record System resulted.

The Machine Records system utilizes electrical accounting machines in the punch-card method of accounting. Before consolidated reports and records can be produced, the record for each individual must be initiated. After it is

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originated, there is the task of daily posting of the card to insure its currency and accuracy in respect to transfer, promotion and change in any classification data. The daily diary, after being carefully controlled into the system, is analyzed by skilled personnel who select those types of changes which the Bureau has determined should be reflected in the basic tabulating card, maintained for each individual. The daily diary will be later explained.

The tabulating card is known as a punch card, inasmuch as information is recorded in the card in the form of punched holes, which represent letters and numerals. Once the information is recorded in punched hole form, it becomes a permanent versatile record. Punch cards are fed through different machines which perform the various functions of sorting, filing, printing, selecting, adding, etc. When the machine encounters holes in the card, electrical contacts are made through the punched holes, starting timed electrical impulses, which in turn automatically cause the machine to perform its accounting functions. Since a large variety of information is required in the personnel accounting system, a number of differently designed cards are used in Machine Records Installation.

All card forms are of standard size. The card form most commonly used is the Personnel Status Card, one of which is maintained in the files of the Personnel Accounting Office for each individual belonging to organizations, serviced by it. This is the basic record used for personnel statistics prepared in the Personnel Accounting Office. As a need for specific items of information changes, the data carried in the Personnel Status Card is changed. As has been noted, the Bureau determines what items of information will be carried in the Status Card.

Six different electrical accounting machines are used in Machine Records Installations, in conjunction with manual operations, to accomplish the various requirements. One machine enters personnel data in the form of holes in the cards. Its operation is similar to that of a typewriter. This machine is known as the Key punch. Another (the Interpreter) automatically prints the information contained in the card along the face of the card itself, so that the information can be read easily, without reference to the holes themselves. Another machine (the Sorter) sorts cards into alphabetical or numerical sequence, at an amazingly high rate of speed. A machine for reproduction of the record, either completely or partially, is also provided;

it is known as the Reproducer. Another machine automatically files or selects records from a file; it is known as the Collator. Finally, the machine for preparing reports completes the machine accounting picture. This machine, The Tabulator, adds, subtracts, accumulates and prints, both alphabetically and numerically, the information desired in report form.

Personnel Accounting Activities and Personnel
Accounting Offices

To simplify the nomenclature, the personnel accounting agencies have been divided into two categories: the Personnel Accounting Activities and the Personnel Accounting Offices. The Accounting Activities are those units of the Naval Establishment which have been assigned an allowance of personnel by the Bureau. The Accounting Offices are those offices, which have been equipped with the Machine Records Installation and have been designated by the Bureau to collect and compile the data from all the Personnel Accounting Activities ashore and afloat. The Personnel Accounting office is a storehouse of a great deal of factual information concerning the personnel of the Activities which it services. These offices are designed to furnish

It is known as the calculator. Another machine
essentially like it records records from a film;
it is known as the collector. Finally, the machine
for preparing records completes the machine as-
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Information is coming from the calculator

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rapid and accurate reporting on the activities under their control, to the Bureau, as well as to render a variety of services to local commanders and units.

The Accounting activities make their personnel reports to the accounting office assigned to them and not to the Bureau. The reports now required, by each activity, consist of two forms, a Personnel Accounting Card and a Daily Personnel Diary. This is quite a contrast to the old system of six cards and six reports.

An activity initiates its accounting system by submitting a Personnel Accounting Card to its Accounting Office, one for each man attached. This card, designated Navpers 500 (See Figure 1 on the following page), has blocks for entry of the following data:

Name	Duty Assigned
Service Number	Date Enlisted
Rate	Place Enlisted
Designator	Date Enlistment Expires
Designator Qualifications	Longevity
Branch of Service	Color
Total Awards	Date of Birth
Current Tour Date	Language Ability
Active Duty Date	Limited Duty

and the knowledge resulting from the activities
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results of the activities of the State, to the benefit
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Figure 1.

Personnel Accounting Card

1. NAME EATON, Jr., Lafayette Claud		2. SERVICE NO. 261 97 55	
3. RATE ABBREVIATION CPHM	4. DESIGNATOR 11	5. DESIGNATOR QUALIFICATIONS	6. BRANCH OF SERVICE USN
7. DUTY ASSIGNED RDUT	8. DATE ENLISTED 4-13-47	9. PLACE ENLISTED VALLEJO, CALIFORNIA	10. DATE ENLISTMENT EXPIRES 4-12-53
11. NEXT LONGEVITY 6-1-49	12. FOR YEARS 12	13. COLOR 0	14. SEX M
15. DATE OF BIRTH 6-2-17	16. LANGUAGE ABILITY	17. TOTAL AWARDS	18. LIMITED DUTY X (L-5)
19. CURRENT TOUR DATE 4-13-47	20. CUM MOS. OUT 90	21. ACTIVE DUTY DATE 3-11-37	22. DEPENDENTS WDC OD1
23. DATE 4-13-47	24. CODE 90200-76	25. COMBAT QUALIFICATION, SPECIAL QUALIFICATION, SERVICE SCHOOL COMPLETED Hospital Corpsman Special Duty	
26. 700			
27. (2)	29. (2)	30. 6-1-44	31. 62-11
32. 1847	33. 0248		
34. UNIT ATTACHED WARE ISLAND NAVAL SHPYD. (5867-0900)(0248), Vallejo, California			
35. DATE RECEIVED 4-25-47	36. RECEIVED FROM USNH WARE ISLAND, CALIFORNIA	37. RECEIPT AUTHORITY NavSpd1tr 12ND-11E-018/By P16-3/MM ser 684-47 of 4-21-47	
EATON, Jr., Lafayette Claud CPHM 261 97 55			

Combat Qualifications	Months Outside the U.S.
Service Schools Completed	Dependents
Date Received	Special Qualifications
Receipt Authority	Unit Attached
Sex	Unit Received From

The Personnel Accounting Card comes in the form of a book of three cards, in order that one typing operation will make cards required by the accounting activities. Card Number One is the alphabetical muster file, retained by the activity. Card Number Two, an onion skin copy, is the source file which is submitted to the Accounting Office, within whose jurisdiction the Activity falls. Card Number Three is retained by the Activity as an allowance file, by rate. The Personnel Accounting Card replaces all the cards previously used for muster and allowance records. As stated above, the three cards are typed by a single operation. The activity retains the original and one copy, the Accounting Office gets one copy. The card enters into the Accounting system the name of each person on board, when the system is instituted and each person who is subsequently received on board.

The other basic source document is the Daily Personnel Diary (Navpers 501), (See Figure 2 on the following page) on which are entered each

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Figure 2.
Daily Personnel Diary

DAILY PERSONNEL DIARY

NAVPERS-501 (NEW 4-46)

GAINS (1)	LOSSES (2)	MISC. (3)	NAME (4)	FILE OR SERVICE NO. (5)	RANK OR RATING (6)	CHANGE ABBREV. (7)	DESCRIPTION OF AND AUTHORITY FOR CHANGE (8)
1M 846	1M 679 680	314	MAPE ISLAND NAVAL SHPYD. AXARD, Lonnie Robert	(5867-0900) 368 79 05	(0248) SI 8 11	-VALLEJO TRAN	000-001-010-000 Post-Demob Sep Act. MINSY, Vallejo, Cal- AlNav384-46
	315	315	MC CONEILL, Robert P	223 21 61	CY 391	CNLY	1-18-50 for 15 yrs. 10-5
	316	316	PARRISH, John W	206 98 84	CCS 361	CDEL	3-28-46 for four yrs.
	317	317	PARRISH, John W	206 98 84	CCS 381	CDEE	3-27-50. 30
	318	318	PHIPPS, William B	295 28 17	CBMA 324	CPGL	CBM. AUTH: BuPers C/L # 11-42.
	319	319	PHIPPS, William B	295 28 17	CBM 511	CDRA	3-1-44.
	320	320	SOHNEY, Osmond O	355 58 99	CBM 391	CNLY	3-30-50 for 24 yrs. 30-8
	321	321	CAELE, Roger R	305 24 36	CPC 357	CCAT	TO DUTY: Returned from Leave 0730, 11 4-24-47.
	322	322	COOK, Arthur L	316 40 19	CCS 351	CCAT	TO DUTY: Returned from leave 0800, 11 4-24-47.
	323	323	FUGERE, Clarence M	823 69 15	SI 351	CCAT	LVD ----- Departed 1000, 4-24-47. 71
	324	324	STICKO, Thomas J	755 24 47	SSMC 335	CCAT	LVD ----- Departed 0900, 4-24-47. 71
846 847	680	324	MAPE ISLAND NAVAL SHPYD. MAYON, Jr., Lafayette C	(5867-0900) 261 97 55	(0248) CPML 111	-VALLEJO PDUT	002-001-001-002 USNM, Mare Is. Cal - NavSpdltr 12ND-11E- elb/Ry PL6-3/1E Ser 684-47 of 21 April 1947.
848			PARRISH, Albert H	380 50 60	CBM 111	PDUT	MLPED (Disestablished) ALBANY, CAL - Com-12 Spdltr 699-47.
	681		STEVENSON, Sperry (n)	316 46 19	CBM 892	ELTC	Accepted appoint. to ENSIGN by the President this date. AUTH: BuPers ltr Pers-3638-ao dtd 2 April '47.
		325	STEVENSON, Sperry (n)	316 46 19	CBM 351	CCAT	TO DUTY: Returned from leave this date. 11

CERTIFIED TO BE A TRUE COPY

/s/ O. W. GAINES, Capt., USN,
Naval Personnel Superintendent,
By direction of the Commanding Officer.

Figure 2.
Daily Personnel Diary

day all gains, losses, and miscellaneous changes affecting the physical whereabouts and status of each person. This report is made up daily and is submitted to the Personnel Accounting Office weekly and when changes occur.

These two reports are the basis of all reports compiled by the Accounting Office. Their use has simplified and decreased considerably the clerical work in connection with personnel records and reports. It is absolutely essential that these two reports be submitted accurately and completely by the Accounting Activities. The daily diary is the legal document of an activity which accurately reports all changes in personnel. The difference of the gain and loss columns of the report reflects the actual number of personnel attached, thus establishing a system of accounting.

The organization of the accounting system in the Naval Districts now is more or less stabilized. Each Naval District Headquarters has been designated as a Personnel Accounting Office. All accounting activities, under the jurisdiction of the District Commandant, submit their reports to him.

For the Forces Afloat the organization is still not stabilized, but operates on the following

plan. The Pacific Fleet Personnel Accounting

Offices have been established as follows:

1. Commander Service Force Pacific--Ships of Service Force Pacific, Ships of Submarine Force Pacific, All bases in the Forward Area.
2. Commander Aircraft Pacific--Airforce Pacific, except units under Commander Fleet Air, West Coast.
3. Commander Fleet Air, West Coast--Fleet Air West Coast; Air Force Pacific Ships operating permanently on West Coast; Destroyers, Pacific; Amphibious Force Pacific; Training Command Pacific.
4. Commander Western Sea Frontier--Battleships and Cruisers, Pacific; The Naval Transport Service, Pacific; Pacific Reserve Fleet.

For the Atlantic Fleet, Commander Service Force Atlantic, Subordinate Command, at Norfolk, acts as the Personnel Accounting Office for the entire Atlantic Fleet.

The Personnel Accounting Offices assume personnel accounting cognizance, using machine methods, for the commands as designated by the Bureau. They establish punch card records for each command under their jurisdiction and enter all changes to

punched card records as reported by the Daily Diaries. From these punched card records the Accounting Offices prepare reports as directed by the Bureau.

A sample Daily Diary, Personnel Accounting Card, Personnel Change Card and Personnel Status Card are shown in Figures 1, 2, 3, 4. The Daily Diary and Personnel Accounting Card, (Figures 1 and 2) were submitted to the Accounting office by the Mare Island Naval Shipyard to show that Eaton had been received for duty (RDUT) from the Naval Hospital at Mare Island. Upon receipt of these two reports, the Accounting office placed the code numbers, shown in red, on the reports. These codes are utilized to conserve space in the punch card. Upon completion of coding, the documents are then taken to the key punch machine. At this machine, the Personnel Change Card and Personnel Status Card are punched in accordance with the data listed in the Daily Diary and the Personnel Accounting Card. The punched cards are next checked with the original documents and corrected in case there is a discrepancy. The four documents (Figure 1 to 4) are then taken to the Machine Room. A card which contains the total changes for the day is compared, on a tabulating machine, with individual cards to

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific information required.

insure that for each entry on the report, a card has been prepared, and for each gain entry, the basic source card has been punched.

The account of the activity consists of a file of Personnel Status Cards, similar to this one of Eatons. A set of accounting books is maintained for each activity which shows the original record and all changes reported for such an account. To credit the account of the Naval Shipyard at Mare Island with Eaton, the authority is the Personnel Change Card (Figure 3) and in this case, the actual credit is the Status Card (Figure 4). The Daily Diary also is used to report losses by transfer, or various miscellaneous changes, such as expiration of enlistment, reenlistment, leave, change of rate and any change which affects either the physical status or data that was previously recorded on the Personnel Status Card (Figure 4). These changes are accomplished by machine, and new Personnel Status Cards prepared, showing the change in the new cards. The old and new status cards are removed and returned to the records by the machines. The account books and cards are then checked against each other to see that all additions and deletions have been properly made. If they verify each other,

[illegible]

the account is then up to date and correct, and is available for any statistical data required by the Type Commander or the Bureau.

As previously stated, the Accounting offices compile the reports required by the Bureau. At present, the Accounting offices submit the following reports to the Bureau:

1. Monthly Strength Report of Each Activity.
2. Bi-Monthly Muster Roll of Each Activity.
3. Monthly Strength Report, Composite by Type Commands.
4. Monthly Complement Analysis, by Type Commands.
5. Quarterly Composite Report of Expiration of Enlistment by Type Commands.

Actually, the only personnel report submitted directly by each ship and station today, to the Bureau, is the old monthly roster of officers. All other personnel reports are made by the Personnel Accounting office. This punch card accounting affords the Bureau with almost instant availability of all the data on the cards. These data are constantly being brought up to date by the daily submission of documents to the Accounting offices. These data are of great value, in that they reflect the immediate situation in regard to

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personnel statistics for the whole Naval Establishment.

Personnel Accounting on the Bureau Level

In the present organization of the Bureau of Naval Personnel, the Personnel Accounting System is under the cognizance of the Assistant Chief of Naval Personnel for Plans. Specifically, it is under the Director of Planning and Control, with an officer assigned as Officer in Charge of the Personnel Accounting System. With this organization the personnel accounting system is used primarily in conjunction with distribution of enlisted personnel. The system has not been fully developed for use in the Bureau, but it appears feasible to extend the present system and integrate it more closely with the other statistical functions of the Bureau. If this is feasible, it should be possible to use the data obtained in the present personnel accounting system for fiscal as well as distributional functions. The present organization is very confusing and will undoubtedly be greatly improved in the near future.

Personnel Accounting in the Army

The Navy can profit by a study of the Personnel Accounting system of the Army. The two

The second step is to find the level of the river.

Method of measuring the level of the river

The first step is to find the level of the river. This is done by measuring the height of the water in the river. The height of the water is measured from a fixed point on the bank of the river. The fixed point is usually a point on the bank which is not subject to erosion. The height of the water is measured by a staff or a pole which is placed in the water. The staff is graduated in feet and inches. The height of the water is read from the staff. The height of the water is then compared with the height of the fixed point. The difference between the two heights is the level of the river.

Method of measuring the level of the river

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systems have many features in common and have about the same over-all problem to solve. The Army has been using its system of Machine Records since 1940, and appears to be getting more and better results from its system than does the Navy. The Army system was originated at the War Department level and was then extended to the field. Just the opposite has occurred in the Navy, the system was first used in the field, then absorbed by the Bureau. As stated above, the Bureau has yet to integrate its system with all its statistical functions. This will require some remedial action in the near future.

The Army Machine Records Units correspond to the Navy Personnel Accounting Offices. These Machine Records Units operate along command channels and normally function as a section under the Adjutant General of the Headquarters concerned. The Units collect personnel data from the personnel sections and administrative centers, act as a reservoir of such data and furnish timely administrative information, reports and records as required. They have been designated as clearing houses and control points from personnel sections to the higher echelons, and as storehouses of in-

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formation for the higher commands. Thus, requests from various sources for such information can be directed to the Machine Records Units, rather than to the personnel sections in the field. In the Army Air Forces, the Machine Records Units are combined with Statistical Control units and operate as separate staff sections under the Statistical Control Officer.

The operating procedure within the individual Machine Records Units is disseminated to the field units by the Strength Accounting Branch in the Adjutant General's office of the War Department. Standard procedures, reports, equipment and type of personnel exist in all the Machine Record Units. This allows rapid interchange of servicing, both individual and organization, and permits rapid and exact compilation of consolidated reports on a world wide basis by the Machine Records Units in the Strength Accounting Branch of the Adjutant General's Office.

The Machine Record Unit is dependent upon field reporting for its information, inasmuch as the files maintained by the Machine Record Unit reflect, in a condensed and centralized form, the detailed personnel data concerning personnel and organizations of a command usually approximately

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the size of an Army.

The Army's Morning Report corresponds to the Navy's Daily Diary. The Morning Report is the permanent statistical and historical document of each unit and is prepared and submitted on a daily basis. Standard information is required for each Morning Report entry by the pertinent Army Regulation. As the Army picture changes and the War Department and other high governmental agencies desire to know certain personnel statistics relative to the Army personnel, the information required to be carried in the Machine Records Unit file will vary. Accordingly, in order to meet the demands of the War Department for information to be reflected in the Unit file, when such information is not required by the Morning Report regulation, the Records Unit, through its local headquarters, requires certain additional data to be reported on the Morning Report, so that the information necessary to compile War Department reports may be in the punch-card file.

Reporting units have the burden of reporting this additional information to the Machine Records Unit. However, the Machine Records Unit, with this additional information in the file, is called upon

for a large volume of detailed classification reports, which otherwise would have to be prepared by each of the reporting agencies. An example of this additional information is term and date of enlistment for Regular Army enlisted men and category of voluntary status for officer personnel. Both of these items are essential factors in the preparation of the Inventory and Projection of the Strength of the Army, a very important and detailed report prepared for the War Department on a monthly basis by the Machine Records Unit.

The monthly audit of Machine Records Unit files, which is performed each month in the form of preparation of personnel rosters, for forwarding to the field units, serves as a means of securing information for Machine Records Units files, inasmuch as correct information is verified, missing information is added and incorrect information is corrected.

The Machine Records Unit is a storehouse of a great deal of factual information concerning the organizations and personnel of the command to which it is assigned. Machine Records Units are designed to furnish rapid and accurate reporting, on the organizations and personnel of the command to which

for a large volume of detailed classification work, which otherwise would have to be prepared by hand.

Each of the resulting classes, as a result of the automatic classification is given a date of origin.

Information for each class will then be obtained by a search of the original records for all items.

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they are assigned, to the War Department and other high governmental agencies, as well as to render a variety of services to the local headquarters and to field units. Machine Records services include:

- a. Strength returns
- b. Locator surveys
- c. Rosters
- d. Classification reports
- e. Personnel statistics
- f. Special studies
- g. Historical records
- h. Additional services as required

The "Inventory and Projection of Army Strength Report" is an example of one type of report which the Machine Record Unit submits to the War Department. This is an actual projected report of army strength prepared monthly, with data as of the last day of each month. It shows the actual strength, that is, the number of personnel in the units reported by that Records Unit. It also shows the projected retainable strength for the projection periods and the planned bulk strength authorized each command in the War Department Troop Program. As an example of the projected dates used on this report, personnel reported for the 31 May 1947 analysis are projected through the

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following dates: 30 June 1947, 31 August 1947, 31 October 1947, 31 December 1947, 30 June 1948, 31 December 1948, and 30 June 1949 and beyond.

This is vital information in connection with the number of personnel replacements required at these intervals.

In the preparation of this report, tabular reports and summary cards are prepared as follows:

- a. Report No. 1 - Actual-projected strength by grade - Summary cards are prepared showing the actual and projected retainable strength of each command, for personnel of each status category, by race, identity, and grade. The status categories follow:

1. Operating personnel, comprised of personnel assigned and attached unassigned to operating units and overhead, including training reserve units.
2. Personnel in general reserve units, comprised of personnel assigned and attached unassigned to units designated as general reserve.
3. Pipeline personnel, comprised of personnel exclusive of non-effectives in

pipeline categories, as shown in
Troop Program.

4. Foreign Assignment Personnel as shown
in the Troop Program.
 5. Personnel enroute to overseas duty.
- b. Report No. 2 - Actual projected strength
by Military Occupational Specialty -
Summary cards are prepared showing the
actual and projected retainable strength
of each command, for personnel in each status
category listed in Paragraph "a" above, by
race, identity branch and Military Occupa-
tional Specialty. The Army uses the
Military Occupational Specialty number
assigned to each man in the same manner
the Navy uses the job code number.
- c. Report No. 3 - Actual strength of Non-
Effectives - Summary cards are prepared
showing the actual strength of each com-
mand, for personnel of the following non-
effective categories, by race and identity.
The actual strength of non-effectives is
not projected.
1. Patients not to be returned to duty
 2. Personnel in process of separation
 3. Personnel on terminal leave

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1960-1961: 100% of the population was employed in the service sector.

3. $\mathcal{F}(\mathcal{C}) \subseteq \mathcal{F}(\mathcal{C}^*)$ and $\mathcal{F}(\mathcal{C}^*) \subseteq \mathcal{F}(\mathcal{C})$.

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1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 26

- d. Report No. 4 - Planned authorized bulk strength by grade is designed to show authorized bulk strength broken down by race and grade.
- e. Report No. 5 - Planned authorized bulk strength report by Military Occupational Specialties. This report is designed to show authorized bulk strength for each part of each section indicated in paragraph "d" above, by race, branch, and MOS for enlisted personnel.

The Army personnel accounting system is completely integrated and coordinated with all other recording and statistical functions of the War Department. It has taken the Army about five years to establish their system, but today it seems to be very satisfactory. There are still some inaccuracies due to errors made all along the line. The Army is faced with a personnel shortage to operate their system properly, but as a whole, their Machine Records System has been accepted and is now a permanent part of the Army. The Machine Records are used for purposes of planning, for budget estimates and other fiscal matters as well as for procurement and distribution of personnel. At the present time the Army is in the process of servicing their

Reserve personnel files by machine records.

Conclusion

The Navy's Machine Records Installations were born by reason of necessity for more accurate, detailed and rapid reporting of personnel and strength statistics. In order to secure accurate and current statistics, a new system of personnel accounting has been established. Through it, ships and stations have been relieved of much of the routine preparation of reports. Instead, ships and stations report daily changes to accounting offices, where records are kept on punched cards. Periodic reports are quickly tabulated on electric accounting machines and special reports can be obtained for any purpose as desired. A further advantage of the new system is its flexibility. Since each enlisted man has a card in the files, a vast amount of statistical information can be recorded for each man. Not only will a man's rating and pay grade be recorded, but in addition his job classification code, not only for his primary job classification, but also a second or third classification. With the development of the new personnel accounting system, the Navy's methods of compiling personnel statistics are now capable of recording all the

types of information needed for personnel planning and administration.

The development of the new accounting system has been done to a large extent by trial and error methods, mostly by the personnel in the field. It still has many defects and is not stabilized. The two most serious defects of the system are the continued inaccurate reports of the reporting activities and the critical shortage of properly qualified personnel to operate the system in the Personnel Accounting Offices. The inaccurate reports can be corrected by closer attention on the part of each commanding officer. The lack of trained personnel is not peculiar to just this one phase of personnel control, it applies throughout the whole service. The selection and training of qualified personnel, to operate properly the personnel accounting system, is a problem which demands immediate attention.

The system has been used on an experimental basis for about three years and was adopted for use throughout the service less than a year ago. The system will have to be more fully integrated with the Bureau's records and statistics function, as soon as practicable. This can be done as the necessary improvements are gradually incorporated

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of 20 years and 10 years respectively. The 10-year horizon is used to

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in the system. It is believed that one specific step, which could be made now, would be a thorough and detailed study of the Army's system, with a view to a possible adoption of some of the Army's methods, especially at the higher command levels.

It may be necessary to revise completely the present accounting system in order to fit it into the other statistical functions of the Bureau. A detailed study should be made of the Bureau's requirements as to exactly what data it needs from its accounting system. It has been said, "if you don't know where you are going, how can you tell when you get there?" This applies to the present status of the accounting system--there is no definite information available as to just what data the Bureau needs from the accounting system, to help the Bureau accomplish its mission. After this information has been obtained, the next step should be to set up an accounting system which will supply this data to the Bureau. This cannot be done overnight; it will require considerable time and effort. It is believed that the Bureau is in the process now of initiating this procedure.

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PERSONNEL CHANGE CARD

LICENSED FOR USE UNDER PATENT 1772 497

10. 10. 1911

From August 1st to 10th

THE UNIVERSITY OF CHICAGO

1910

CHAPTER II

THE CLASSIFICATION OF ENLISTED PERSONNEL
IN THE UNITED STATES NAVY

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Introduction

A knowledge of what the job is and who shall do it, is the first prerequisite to a satisfactory personnel control program. In this chapter, a study will be made of but one phase of the problem--"who shall do it"; in other words, the classification of enlisted personnel. Individuals differ widely from one another intellectually, physically, emotionally and socially. A good personnel program considers these differences. A man who is mechanically inclined is put on a mechanical job. Another man by training, intellect and emotional pattern is best suited for clerical duties. It is wasteful to put a strong man pushing a button if an equally capable, and physically weaker man is passing heavy ammunition. It would be a huge mistake to make a man with poor eyesight responsible for aiming a gun. Some men have the social and emotional pattern that makes it possible for them to watch a radar screen day after day. Other men could not be depended upon for this duty,

Page 1

THE UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR

PROCLAMATION

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

IN WITNESS WHEREOF, I have hereunto set my hand and the Great Seal of the United States, at the City of Washington, this 1st day of January, 1901.

WILLIAM H. TAFT, President.

JOHN D. LONG, Secretary of the Interior.

Approved: _____

By _____

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no matter how great the pressure on them. Recognizing that men differ and knowing how to make the most of these differences are important phases of personnel control. The aim of a satisfactory personnel program is to assign the right man in the right job, and every available technique and piece of information concerning him are utilized in accomplishing this aim.

In order to assign the right man, it is first necessary to determine who is the right man. This is the function of the whole classification program of the Navy. This function involves the recommendation of men for duty on the basis of their aptitudes, training, and experience.

In this study, individual differences will first be considered. Then the Navy classification system will be described and evaluated. No attempt will be made in this study to cover the nature of Navy jobs or the classification of Navy jobs, except to show how the classification of personnel is dependent on those two subjects.

Individual Differences

In order to evaluate men on the basis of their individual aptitudes, training and experience, it is essential to consider individual differences.

There are several hundred thousand men in the Navy and no two are alike. Some are strong, some are weak. Some are superior in intelligence; and others are limited in this respect. Some like company while others prefer to be alone. Some are easily frightened and some are very brave. Obviously, this listing of comparisons could go on indefinitely.

For convenience these differences are divided among four different areas:

1. Physical differences, such as variations in height, weight, strength, sense perception, and organic health.
2. Mental differences, such as the ability to reason, to memorize, to learn, to act independently, and to take responsibility.
3. Emotional differences, such as those displayed by fear, loyalty, jealousy, or susceptibility to praise.
4. Social differences, which are the result of differences in environment and training.

Elements from all four areas are embodied in an individual. His ability to perform a certain task results from the manner in which these ele-

ments are combined in his general make-up. This fact should never be overlooked in evaluating an individual. It might be a waste of excellent material to assign a man to ammunition handling simply because he had the physique for that job. He might have the excellent memory required in a signalman, or the infinite patience required in watching a radar screen for hours on end, or the tact and training necessary in a captain's yeoman.

Some differences among people are obvious - you can see them. Differences in height, weight, shape, and color are common examples of these obvious differences. In height, for example, a few men are over six feet, a few are under five and a half feet, but the majority are somewhere in between. The average for men in the Navy is pretty close to five feet nine inches. In weight, a few men weigh more than two hundred pounds, a few weigh less than one hundred thirty, and most are somewhere in between.

These facts illustrate a general principle of individual differences - namely, individual differences on any single characteristic tend to be distributed so as to form what is called a normal curve. This means simply that most men are at or near the average.

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Another principle of individual differences is based on the fact that there is frequently some relationship between characteristics. Take height and weight, for example. Tall people tend to weigh more than short people. Of course, there are some men who are tall and thin and others who are short and stout, but by and large there is what psychologists call a positive correlation between the two factors of height and weight. This simply means that you will find more two hundred pounders among men who are over six feet tall than you will among men who are shorter than five and a half feet.

Individual differences in physical characteristics, interests, and aptitudes are not qualities or types. They are differences in degree. Such words as taller, shorter; like, dislike; bright, dull are expressions of quantitative and not qualitative differences. A third principle of individual differences is that they are differences in degree of presence of a certain factor.

A great many differences among people are not so obvious as differences in height and weight--you cannot see them at a glance, but you can see them in behavior. And most of these less obvious differences are more important for the proper selection

and classification of men for different types of naval training and duty than the more apparent and simple differences in physical characteristics. Variations in background, in interests, in experience, and in aptitudes are among the most important of these less apparent individual differences.

Men come to the Navy from varied backgrounds. Some come from rich homes, some from poor homes, most from middle class homes. Some are from the country; others are from the city. Some received good grades in school work, graduated from high school, and went on to college; others found learning difficult and failed to complete the eighth grade. These background factors involve economic, cultural, and educational status.

Interest, what a man likes and dislikes, are another source of individual differences of import to the Navy. Some men like to get hold of an old radio or an old car and take it apart. Others would be bored from start to finish with such a job, if indeed they could finish it. Hobbies are a pretty good index of a man's interests. Some people collect stamps, some are amateur photographers; some like to read lots of books while others would rather be out playing baseball. From

looking at them, you wouldn't guess that Gene Tunney likes poetry or that Frank Sinatra likes fighting and actually started out to be a prize fighter. But if you will ask any group of men about their hobbies and interests, you will get an astonishing variety of answers all of which have significance in placing them in the proper billet.

Still another important factor in individual differences is experience, particularly job experience. Some men have worked in the factory, some on the farm, others in offices or on the road, and still others have not worked at all. Asking a man about his job experience generally gives some clues as to skills he may have. Did he work in an office? Perhaps he can type or punch an adding machine. A garage? Maybe he can repair motors. The job history of every man who comes into the Navy is a little different from that of every other man. Much of this job experience and skill can be put to good use in the Navy.

Another type of individual differences, and probably the most important in describing and classifying the Navy's manpower, is the differences among men in aptitudes. You often hear someone describe a friend by saying, "He has a mechanical bent". Or, about someone else, it may be said,

"He's the bookish type". These commonplace sayings are not very precise descriptions from the scientist's point of view, but they reflect a basic fact about people. Some people do have an aptitude for mechanical work and others an aptitude for dealing with verbal and linguistic material. But what does aptitude mean? It means the ease with which people learn different types of things. Some men can learn to send and receive radio code in four weeks; others can work at it for twenty weeks and still not have it down pat. We say that the former have an aptitude for learning that type of material while the latter do not.

One of the basic purposes of Navy personnel control is to put the right man in the right job. To accomplish this, it is necessary to have descriptions as complete as possible of both the job and the man. In considering the man, it is important to know the relationship between individual characteristics and success on the job. It is necessary to know just which characteristics are essential for proper performance, which are desirable, and which may be disregarded. These characteristics may be considered, as was previously suggested, in the following areas: (1) physical, (2) mental,

There is a certain type of person who is not very much interested in the scientific side of life, but who is interested in the practical side of life. This is the type of person who is interested in the practical side of life, but who is not interested in the scientific side of life. This is the type of person who is interested in the practical side of life, but who is not interested in the scientific side of life.

(3) emotional, and (4) social.

Characteristics necessary for proper performance in a given billet are included in the billet analysis for that billet.

In a few cases the relationship between physical characteristics and job performance is obvious. It will not do, for example, to assign a six foot, two hundred pound athlete to the cramped quarters of medium bomber gun turret. He would not be able to stand up in it, let alone manipulate the guns effectively. The relationship between good eyesight and certain jobs in visual communication is also apparent. To read semaphore and flags accurately, a man must have 20/20 vision and good color perception.

No one would select for training as signalman, a person with so poor a memory that he could not memorize code. He would not select as a leading petty officer one who could not think for himself. Yet too frequently in selecting men for naval billets, not enough attention is paid to their mental qualifications. There is a tendency, particularly where a promotion is involved, to employ a new billet as a reward for services well done in another billet. This practice may put the

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right man in the right job, but it may also cause serious misplacement.

Men who are easily frightened should not be placed in critical battle positions. Men with quick tempers should seldom be given positions of leadership. The emotional pattern of a man is very important in determining his fitness for a job.

The good sense of putting men where they can draw on their previous experience and interest needs little explanation. Perhaps a man could do an acceptable job as a yeoman; he has enough clerical aptitude and he knows how to type; but his real interest is in machines--he has worked in a garage, is skillful with hand tools, and literally, loves to tinker. If the Navy will put this man where these interests can be exploited, it will receive better and more efficient service than it would be given if he is made a yeoman. The motivation to do a good job springs partly from interest in the job and the personal satisfaction one gets from doing it. Interest itself is a function of the physical, mental, emotional and social characteristics of the man, influenced perhaps, more by social characteristics than the others.

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of all of a man's characteristics, is his aptitude for carrying on a given activity.

The place of aptitudes in fitting a man to do a job can be studied from two angles. Men who have an aptitude for a certain type of work will generally show superior performance in that work. The responsibilities of a quartermaster call for a relatively high level of general verbal aptitude and arithmetical sense. The man who is below average in verbal and arithmetical aptitude will have a hard time discharging those duties competently: he lacks the two principal qualities required for the job. The other angle from which aptitudes are important is the time required for training. During the war, training programs were speeded up. It was necessary to get the largest possible number of trained men to the fleet in the shortest possible time. Therefore, it was necessary to select men for special training who could complete the training program successfully. To graduate only fifty men out of one hundred entrants, for example, is highly wasteful: it wastes the time of instructors, it fills up the schools with people who will never be qualified to hold the jobs for which they are being trained, and it holds back

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1. The first step is to identify the problem or question that needs to be answered.

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the men who could otherwise progress faster through the training period.

Granted that there are individual differences and granted that they are important, the question still remains of how are we to measure them? The manner in which individual differences are measured depends, obviously, on the particular characteristic under consideration. Height is measured in inches and feet; weight is measured in pounds. These are simple. The techniques are accurate and reliable.

This was not always the case, however. Several centuries ago, there was no such thing as a standard ruler or yardstick. People had very crude notions about these commonplace measurements which today we never stop to think about. An English king once decreed that a "foot" was officially the length of his shoe. This was an important decree. It introduced the notion of a common standard. Today we have a Bureau of Standards; the length of a foot is defined very precisely; and everyone accepts and uses this definition.

In general, physical characteristics are the easiest to measure. There are meters for measuring a man's grip. His ability to run can be measured by timing him over various distances. His ability to jump is, of course, measured by the

the way was made somewhat clearer later through

the following points.

It is not clear that there are individual differences

and it is not clear that they are important. The question

will remain of how and why we measure them? The

answer is that individual differences are measured

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number of feet he can cover or the height he clears.

Eye charts and other devices measure eyesight.

Night blindness can be tested as can ability to hear, to talk over a sound powered phone, or to distinguish colors. The Germans developed some elaborate instruments for measuring a man's reaction times, which were extremely valuable in placing him in certain jobs. All these measures are of significance to and are presently employed by the Navy.

Measures such as these suggested above are frequently referred to as tests. Tests can be extended to include tests of a man's mental ability, technical skill, or aptitude. Testing may involve actually doing something physically or it may be simply a matter of answering written questions.

The written question type of tests may be employed to measure a great number of different characteristics. There are tests designed to measure general intelligence, achievement in various areas, interest, or aptitude. All tests have limitations and the written test is likely to be the most uncertain. The manner in which a test is constructed, the selection of test items, the area being tested are all factors that influence the success of the test.

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It is beyond the scope of this discussion to go into the field of testing and the statistics involved. Summarizing the foregoing discussion, the following should be kept in mind:

1. Individuals differ in a multitude of ways.
2. These individual differences are, for the most part, differences in degree.
3. The fact that there are individual differences is important for selection, training, and classification.

The Navy's Personnel Classification System

The problem of personnel classification is not a new one to the Navy. It has grown more complex with the passage of years, but personnel classification is as old as the Navy itself. Back in the days of sail, about all the commanding officer had to worry about, was a system of designating men as apprentices, ordinary seamen, able seamen, boatswains, carpenters and perhaps a few gunners and riflemen. The transition from sail to steam, started when the U. S. S. Fulton was launched in 1815. This transition was slow and remained fundamentally unchanged following World War I. The classification system likewise advanced at a slow pace until World War II. The advance made in

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the only way to get the best results is to

1. The first thing to do is to get the best results.
2. The second thing to do is to get the best results.
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the field of naval aviation and radio necessitated expansion in the rating structure, but no change was made in the method of classifying enlisted personnel.

The unprecedented expansion from approximately seventy five thousand men in 1938 to roughly three and one half million men in 1943, soon revealed the inadequacy of the classification system and rating structure, as it then existed. In 1943, the Enlisted Classification Section of the Bureau of Naval Personnel started an extensive analysis of all Navy jobs. This analysis was necessary to provide information to assign a definite title and numerical code to each of the more than eight hundred Navy jobs. The code had been found to be the only means whereby sufficient flexibility and complete identification could be obtained within the Enlisted Navy Job Classification system. This job analysis program had progressed sufficiently by 1945 to permit issuance of the Manual of Enlisted Navy Job Classification. Early in 1946, the Chief of Naval Personnel directed the Naval Service to place the procedure, outlined in this manual, in effect throughout the service.

The classification manual is a work book from which the assignment of a standard title and

five-digit numerical code to each enlisted man in the Navy is made. It lists all major jobs found on ships and stations throughout the Naval Establishment. Through the assignment of these titles and codes, a more refined detailing of enlisted personnel in terms of individual skills and the requirements of jobs to be filled is being realized.

Under this system, every enlisted man is assigned a title and code indicative of the Navy job he is best qualified to perform. The code numbers, together with the man's rating, positively identifies him with relation to the job skill he possesses. This permits use of the system for the following purposes:

1. Assignment of men to ships and stations in terms of their individual Navy job qualifications.
2. Identification of each man's individual job qualifications on draft lists and availability reports.
3. Inclusion of job qualifications data in personnel accounting procedures.
4. Statement of complements of ships and stations in terms of specific qualifications required for their efficient operation.

5. Provision of precise terms for use in requesting personnel by qualifications.
6. Assistance in the selection of personnel for training.

Accompanying each job listed in the job classification system is a brief definition of the job. This definition is not a complete analysis of all the tasks involved. Rather, it is intended to indicate those significant aspects of each job which make it different from all others. Accompanying each definition is a five-digit code. This code is assigned to personnel qualified to perform this job. Listed separately, there is a two-digit code which tells where the individual skill was acquired.

When a man's code is considered with his rating, placement officers may determine the particular skill an individual has acquired, where it was acquired, and also the degree of his supervisory experience. In cases where a man has acquired two or more basically different qualifications, the most important code and title are recorded as his primary Navy job classification and his next most important skill is listed as his secondary Navy job classification.

The code is the key to distribution of en-

1. The Commission of Inquiry is composed of the

President, the Vice-President, and the

Secretary of the Commission of Inquiry.

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shall have the honor to inform the

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results of its investigations.

listed personnel. In accordance with the Bureau's directives, the code appears on all transfer orders, correspondence, and on Page nine of the Service Record, after the rating of every enlisted man. When properly used, it reveals the specialized duties for which an individual is qualified. When used in conjunction with Pages four A and four B, the qualifications pages, of the enlisted service record, it assists in the assignment of personnel to the job for which each man is qualified to perform by experience and aptitude.

For the purpose of maintaining accurate and current information regarding the qualifications of enlisted personnel, it is essential that new codes be assigned as a man progresses to a higher degree of skill. One practical system which could be adopted would be the assignment of classification code numbers at the time the quarterly performance marks are assigned each man. Changes in code numbers reported on the "Quarterly Remark Cards" would then be taken directly from these cards and appropriate entries made in the man's service record and in the Personnel Accounting System.

In general, the system of classification of personnel is most useful in determining the original assignment of personnel reporting for

duty. Classification information is available in the assigned Navy job code and in the qualification pages (4A and 4B), of the enlisted service record.

The potential Navy recruit meets the first of many classification procedures in the form of an Applicant Qualifications Test (AQT), when he first applies for enlistment at a Navy Recruiting Station. The test is administered by the recruiter to all applicants for naval enlistment. The enlistee must attain the current cutting score, which varies with the manpower situation and Navy personnel requirements, before he is considered qualified for enlistment in the Navy. This test measures his ability to learn, to think, and to understand instructions. The enlistee may also be administered the Radio Technician Selection Test if he has indicated a preference for Electronic Technician Training. This test is a screening device to determine the man's background in mathematics, science, shop, electricity, and radio.

Following enlistment in the Navy, the recruit meets the main force of the classification program in the form of the Navy Basic Test Battery and the personal interview, at the Recruit Training Center.

The Navy Basic Test Battery is a series

of four tests and is administered to all recruits. These tests are defined below for informational purposes:

1. General Classification Test (GCT)--
measures ability to learn to think, and to understand instructions. Important in selecting men for training in a field which requires varying degrees of mental alertness. This test is correlated with the Applicant Qualifications Test (ART).
2. Arithmetical Reasoning Test (ART)--
measures computational accuracy and ability to use numbers in practical problems such as calculating time and distance. Important in selecting trainees for rating fields requiring arithmetic ability.
3. Clerical Aptitude Test (CLER)-- measures speed and accuracy in performing clerical work. Important in selecting men for training in the yeoman and storekeeper ratings.
4. Mechanical Aptitude Test (MECH)-- measures potential ability for work of a mechanical nature and familiarity with mechanical and electrical tools, principles and

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operations. Important for selection of trainees in the engineering, construction and repair, electronics, electrical and aviation fields.

The results of these tests are entered on the enlisted service record page 4A-4B.

In order to provide continuity to the classification program, all Receiving Stations within the continental limits of the U.S. are staffed with trained classification personnel. The services of these trained personnel are available, upon request, to any shore or fleet activity within proximity of the Receiving Station. Assistance is available for the job of coding of enlisted personnel, re-testing enlisted men who have not been previously tested or for whom the results of previous testing have been lost, re-interviewing for the purpose of preparing a service record 4A-4B where previous pages have been lost or not prepared.

The prime duty of classification personnel stationed at Receiving Stations, however, is to interview and classify transient personnel passing through their respective stations. In this process, specially qualified personnel are located for

operation. Important for selection of
 treated in the engineering, construction
 and repair, electrical, electrical and
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special billets, certain types of personnel are reported to the Bureau in accordance with current instructions, while others are recommended to service force commands for assignment to operating units of the fleet. During this screening process, any gap appearing in the classification procedure line will be filled, such as retesting, preparing a service record page 4A-4B, etc.

The qualification pages (4A-4B) of the enlisted service record have replaced the Enlisted Personnel Qualifications Card, which was developed during World War II. These pages constitute a complete record of the basic qualifications of each man, to be used in assigning him to Navy schools and Navy duties. It records the following information regarding each man:

1. Full name, service number, rate at time of interview and class.
2. Navy Basic Test Battery test scores. All scores are Navy Standard Scores and should not be confused with Raw scores based on one hundred per cent. As an example, a Navy standard Score of 66 corresponds to a percentile equivalent of 95.

essential difference, certain types of personnel are
 reported to the Bureau in accordance with current
 regulations, while others are recommended to serve
 the Armed Services for special needs in operations units
 of the Fleet. Under this personnel process, any
 up movement in the classification procedure line
 will be noted, such as retention, preparation &
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The classification grade (4-10) of the en-
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The new grade is a composite of the service record
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3. Group Percentage Standing of test scores.

This information indicates the percentage standing of the man's scores as compared with the scores of the entire enlisted population of the Navy. To carry the above example a step further, a Navy Standard Score of 66 is in Group I and would place the man in the highest seven per cent.

4. Special Test Scores such as radio, electronic technicians test, sonar, or any other special screening test in use and administered.

5. A complete resume of the man's civilian educational background with emphasis on certain significant studies such as mathematics and physics.

6. A brief history of personal accomplishments such as hobbies, sports, and talent for public entertainment.

7. A brief resume of the man's work experience as a civilian, including the job code as taken from the Dictionary of Occupational Titles where applicable. This information is a valuable guide in the assignment to a Navy job requiring

1. The first step in the analysis of the data is the identification of the variables. In this case, the variables are the number of votes and the percentage of the total vote.
2. The second step is to calculate the mean and standard deviation for each variable. The mean number of votes is 100, and the standard deviation is 10. The mean percentage of the total vote is 10%, and the standard deviation is 1%.
3. The third step is to calculate the correlation coefficient between the number of votes and the percentage of the total vote. The correlation coefficient is 0.9, indicating a strong positive correlation.
4. The fourth step is to calculate the regression line. The regression line is $y = 0.1x + 0.01$, where y is the percentage of the total vote and x is the number of votes.
5. The fifth step is to calculate the coefficient of determination, which is 0.81. This indicates that 81% of the variance in the percentage of the total vote is explained by the number of votes.
6. The sixth step is to calculate the confidence interval for the regression line. The 95% confidence interval is $y = 0.1x \pm 0.01$.
7. The seventh step is to calculate the prediction interval for the regression line. The 95% prediction interval is $y = 0.1x \pm 0.02$.
8. The eighth step is to calculate the residual sum of squares, which is 100.
9. The ninth step is to calculate the total sum of squares, which is 110.
10. The tenth step is to calculate the error sum of squares, which is 10.

similar experience as a shipfitter (welding), or a yeoman (typing) and also for finding men for special jobs such as truck driving.

8. Recommendations and remarks made by the classification interviewer, based upon information obtained during the personal interview of the man.
9. The Striker Recommendation, made after an analysis of the test scores, motivation for a particular billet and previous experience.

The data on the qualification pages (4A-4B) and the Navy job classification code are useful in selecting men to fill vacancies which occur through losses to schools and separation. Although direct replacement is usually impossible except by upgrading within divisions, the classification information may be used in locating strikers for ratings which have to be recruited within the ship or station.

Classification information is also useful in locating various special abilities as demands occur. Among these are foreign language interpreters, masters of ceremonies, speed boat coxswains,

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mechanical draftsmen, cartographers, barbers, tailors, postal clerks or entertainers.

The most important single consideration in determining the assignment of personnel is the military requirement of the ship or station. This is expressed in terms of the need for men by particular divisions, departments or activities. Since the placement problem is essentially one of fitting a given number of men into an equal number of jobs, with no spares left over, it is obvious that many compromises must be made. In determining personnel assignments, the interests and ambitions of the individual are next in order of importance to the military requirements. These factors, based upon a variety of intangible qualities, which comprise the personality, are very difficult to analyze. They cannot be listed on the man's qualification pages of his service record, except as implied by the total picture of the individual as presented by the data contained on those pages. They are not constant qualities which can be easily measured. They vary with fluctuations in temperament and with the conditions to which the individual is required to adjust himself. This is where the field of individual differences must be taken into consid-

1. The first thing I noticed when I stepped out of the plane was the cold, crisp air. It was a relief after the warm, humid air of the tropics. I looked around and saw a vast, open landscape stretching out before me. The ground was a mix of brown and green, with patches of dry grass and small, scattered trees. In the distance, I could see a range of mountains, their peaks shrouded in a light mist. The sky was a pale blue, with a few wispy clouds scattered across it. I felt a sense of awe and wonder at the beauty of the natural world. I had heard that the landscape was beautiful, but I didn't realize just how breathtaking it would be. I took a deep breath and felt a sense of peace wash over me. This was a new world, a world full of possibilities. I was here to explore, to learn, and to grow. I was ready for whatever came my way.

eration.

Some of the motives which underlie individual choices for duty are: a desire to learn a useful trade; to continue in a trade in which previously employed; a desire for the same duty as a parent, relative, or a friend already in the service; a desire to be in the same division with friends or companions; an attachment to, or respect for, particular officers or petty officers and conversely dislike of the same; a desire to be in a division or activity which is believed to offer most opportunity for advancement in rating; a desire to be assigned duty which pays extra-compensation; or a desire to be topside or conversely below decks.

Care must be exercised by the Placement Officer to analyze requests for particular duty assignments. It should be emphasized that the reasons for choice of duty, as stated by individuals, are sometimes based on erroneous information picked up by "Scuttlebutt", often within an hour after reporting aboard. The Placement Officer should investigate the reasons underlying the preferences for duty and consider the whole picture, the expressed desire, the background of experience, and the Navy Job Classification Code.

Experience has demonstrated that the individual with a strong desire for a particular type of duty will usually, by perseverance, eventually wind up in that duty. In view of this, it is recommended that wherever possible and consistent with the needs of the service, men be assigned duties for which they show strong individual preferences, if in all other respects qualified.

The potential striker recommendation of the classification interviewer contained on page 4B of the service record usually indicates individual motivation. However, it is recommended that personnel not be assigned to duty solely on the basis of information which appears on this page, whenever this can be avoided. Variations in the qualities and characteristics of interviewers and interviewees is in itself sufficient reason for not placing complete faith in the cold data which appear on the document. Also personal consideration of the duty assignment of newly arrived individual has a beneficial influence upon his morale even though his eventual assignment may be no different from that which would have been made by random choice. When it is considered that the intangible factors of the personality so markedly affect

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successful placement, it should be obvious that there is no satisfactory substitute for the placement interview prior to assignment.

Conclusion

The background, development and mechanics of the classification system used in the Navy, have been described so far in this chapter. It has been shown how classification evolved, gradually over a long period of time, then, during World War II, was forced on the Navy due to the enormous expansion of the Navy. Classification became most essential in order that the hundreds of thousands of men coming into the service could be properly assigned and trained. The Navy was slow in starting its classification program, but when the need became evident, every effort was made to make up for the lost time, and all in all, a very commendable job was done. Many glaring errors were made. The plan was oversold in some cases. Some opposition was encountered in both the forces afloat and ashore. A commanding officer resented the implication that he could not place his men in accordance with his own best judgment and his individual needs. Classification was not intended

to deprive the commanding officer of this prerogative. It was intended to be a guide and an aid in the original placement of personnel on a large scale, such as new construction. The commanding officer was encouraged to change the individual classification where it was obviously made in error.

It took considerable time to train qualified personnel to conduct the interviews and to make proper classifications. However, by the end of the war, sufficient personnel were available and the classification program was functioning efficiently. With the rapid demobilization of the Navy, immediately after the war, classification along with many other programs, received a very definite set-back. Most of the qualified classifiers, known as "Specialists (C)", were separated from the service.

The program was maintained inspite of all the difficulties and is in operation today. The process has been somewhat stabilized, but is still being revised in minor respects. At the present time, classification data are available for approximately one third of the enlisted personnel of the regular navy. Practically no classification data are available for enlisted personnel of the organized and volunteer reserve. With the small

with a view to the future of the country.

ONE OF THE MOST IMPORTANT OF HUMANITY'S TASKS

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— *Российская Империя в 1897 году* —

Source: U.S. Census Bureau, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677,

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number of qualified classifiers, now in the Navy, it is estimated that it will take about five years to obtain the needed data on the enlisted personnel of the regular Navy and the organized Reserve.

Thus, it is evident that the Navy still has a real problem on its hands in regard to classification. There is no cut and dried or easy solution. With the new rating structure, which becomes effective in January, 1948, provision is made for a new rating called a "personnel man" (PN). This rating will include the duties of a classifier. If the Navy can put sufficient qualified men in schools and train them in the duties of the "personnel man", a considerable step forward will be made toward the solution of the classification problem. In addition to the schools ashore, it will be necessary to establish comprehensive "within command" classification training programs both afloat and ashore.

Classification of the organized and Volunteer Reserve also warrants considerable study. If the Nation is to be prepared for hostilities, it is essential that the manpower reservoir of the

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Reserves be in readiness for immediate and orderly mobilization and effective assignment. Reserve personnel can be mobilized speedily only if billets have been analyzed adequately and the needed qualifications of personnel have been classified and recorded so that they can be matched to billet requirements. The goal is obviously for the Bureau of Naval Personnel to have sufficient data to know what kinds of billets it must fill, what kind of personnel it already has available, what kinds it can get from the civilian population and have the machinery set and ready to go at any time to procure and assign the personnel quickly and accurately. It is realized that this is a rather large order, but it is a goal toward which the Bureau is directing its efforts. It will take considerable research, time and money to attain this goal.

Another problem which has become evident during this study of enlisted classification, is the necessity of closer integration at the Bureau level of the Enlisted Classification Unit and the Personnel Accounting Unit. These two units have developed independently during the past few years and have possibly reached the stage now where they

should work more closely, one with the other.

The classification of enlisted personnel is an important phase of the whole personnel problem. It is here to stay and still has many improvements which will have to be made.

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CHAPTER III

THE DISTRIBUTION OF ENLISTED PERSONNEL

IN THE UNITED STATES NAVY

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THE DISTRIBUTION OF ENLISTED PERSONNEL
IN THE UNITED STATES NAVY

Introduction

In the two previous chapters of this study, the personnel accounting system and the classification of personnel have been considered. Distribution, the subject of this chapter, is dependent to a large extent on both accounting and classification. These two control features are essential for rapid and efficient distribution. The problem of distribution is a very complex one, yet it is the one personnel problem which directly affects an enlisted man and it is of vital interest to him. Theoretically, if personnel accounting and classification are properly carried out, the next step, which is distribution, should not be too difficult.

The ideal organization is one in which every individual is doing the work for which he is best fitted. The aim of distribution is to attain, as nearly as possible, this ideal.

When a man is placed in a billet for which he is not suited, either through training, experience, or temperament, he cannot be expected to be

interested in the work; he will not have any incentive for advancement; he will be discontented; his morale will be low; and any attempt to motivate him will, in all probability, be wasted effort. As a result, his usefulness to the Navy will be almost destroyed.

But let us place this same man in a billet where he can use skills which he has learned, or which are related to some he has acquired by previous experience, or which he finds he can learn easily and we have a very different situation. Here the man is contented and his morale is high because he derives satisfaction out of his work. His work meets the approval of his superior and he can look ahead with certainty to advancement. He is satisfied in the present and has a feeling of security in the future. Such a man is not only valuable to the Navy himself, but he can easily have a favorable effect on those with whom he works.

The work of choosing and assigning the right man to the right billet is the work of distribution.

An oversimplified picture of distribution is held by many people. On the surface it seems to be simply a matter of placing round pegs in

interested in the work: he will not have any desire
 for advancement; he will be disappointed; his
 motive will be lost; and any attempt to motivate
 him will, in all probability, be wasted effort.
 In a word, his motivation to the work will be
 almost destroyed.

But let us face this issue in a different
 way. Let us ask what will be the result, or
 what will be the effect, of the removal of the
 incentive? Will the worker be less interested in
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It is not possible to answer these questions
 with any degree of certainty. The answer will
 depend on the individual worker, on the nature
 of the work, and on the circumstances.

round holes and square pegs in square holes. But there is much more to the process than that. Distribution must not be so crude that the work to be done is retarded, nor should it be so refined that the effort spent upon it exceeds the value of the process. In brief, it is a problem involving finding the maximum efficiency for minimum selection efforts.

In a large organization where billets should be properly filled and every man assigned a duty which will use his abilities to the utmost, proper distribution necessitates knowing the following:

1. The nature of the billet to be filled
2. The nature of all the other billets
3. The qualifications of the man considered for the billet
4. The qualifications of all the other men in the group

For greatest efficiency within any organization all these factors should be known. For organizations hiring only a few applicants from the general population, the emphasis is of necessity placed on the job within the organization and the qualifications of the applicant. For

1. The first of these is the fact that the value of the property is not known at the time of the sale. The value of the property is not known at the time of the sale because the value of the property is not known at the time of the sale.

mobilization of manpower of a total nation, as in the case of World War II, the complexity of the problem is far greater, for many more factors must be considered.

In an organization like the Navy, the best over-all distribution requires appraisal of the whole mass of possible billets and the whole group of men. Thus it may be that in some instances, men who are less qualified, but who can learn the work quickly, may be selected for some billets which could have been filled by men who already have all the qualifications for the billets. The latter group in turn may have to be placed in billets for which they must be trained, but for which they possess the greatest aptitude and hence the greatest chance to succeed.

Distribution is the phase of personnel control which has been most criticized in the Navy. Due to the complex nature of Navy jobs, it is impossible to find personnel, who have been trained in civilian life, to fill all the types of Navy jobs. It thus becomes necessary to take personnel, who are already qualified for a certain job, and train them for some more complex Navy job. This applies especially in the highly

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It is also true that in the case of a total return, the first step is to determine the value of the whole, and then to determine the value of the parts. This is not a simple task, and it is not one that can be done in a single step. It is a process that requires a great deal of thought and calculation. The first step is to determine the value of the whole, and then to determine the value of the parts. This is not a simple task, and it is not one that can be done in a single step. It is a process that requires a great deal of thought and calculation.

The second step is to determine the value of the parts. This is a task that is even more complex than the first. It requires a great deal of thought and calculation. The second step is to determine the value of the parts. This is a task that is even more complex than the first. It requires a great deal of thought and calculation.

technical billets in the field of electronics, nuclear physics, guided missiles and the like. Distribution is thus affected by the whole training picture. During World War II, with the rapid expansion of the Navy, it was found that there was an excess of personnel entering the Navy from many fields of civilian life, such as lawyers, salesmen, farm laborers. Their qualifications were excellent, but the Navy had too many of them. They had to be trained to do other jobs which were of more value to the Navy. This is one phase of the distribution problem which seems to be most difficult to explain to the layman. It isn't just a matter of fitting "round pegs into round holes". The Navy has to make round pegs out of square pegs to fit some of its very complex round holes.

This study will give a brief description of the current distribution organization and policy in the Bureau of Naval Personnel and in the Administrative Commands ashore and afloat. It will compare the Navy distribution system with that of the army and Marine Corps.

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 people who are not in the navy to do the work.

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Distribution Organization and PolicyIn the Bureau of Naval Personnel

The basis of all enlisted distribution in the Navy is the "Operating Force Plan". It is the function of the Operating Force Plan to specify the allocation of personnel to the various elements of the Naval Establishment and to keep the overall allocation within the prospective availability of personnel. These allocations, when transformed into allowances, are intended to indicate the number, and qualifications of the personnel required by the individual activities to carry out currently assigned missions under normal conditions.

The Deputy Chief of Naval Operations for Personnel, who is in the highest echelon of the Navy Department, determines from the current Operating Force Plan, the number of men required to man all the ships and stations. Knowing what ships and stations are to be operated, it is then necessary to determine how many personnel will be allotted to each ship and shore station. This is done in the Complements and Allowances Section of the Bureau of Naval Personnel. An "allowance sheet" is made up for each ship and for units of the shore establishment.

This ship's complement is its manpower budget. Prepared and issued by the Bureau of Naval Personnel, the complement for a particular type and class of ship established the number and kinds of men deemed necessary to operate the ship. Complements vary from ship to ship or among ship types and classes in accordance with several factors, including: stations to be manned during battle and watch, equipment to be operated, and limitations as to living space and weight as established by the Bureau of Ships. When these factors are translated into terms of ratings, pay grades, and eventually job classifications, the resulting complement becomes the basis of personnel actions for that ship. The ship will organize its men into divisions and watch sections in accordance with the complement and men will be detailed to the ship and transferred from it in accordance with the complement as modified by the current allowance for the ship.

Allowances represent the number and kinds of men to be actually assigned to a ship. Whereas complements are relatively tables, changing only as there are physical modifications in ships, allowances may vary from time to time in accordance

with the size of the naval force. In wartime, complements may even be exceeded slightly for such purposes as training men to be subsequently transferred to newly constructed ships. During peacetime, however, when battles are not imminent and when the naval force is reduced, allowances may be considerably below complements.

The Bureau's policy is that the individual and composite allowances are to be used as a guide in the distribution of personnel and it is not expected that they be adhered to rigidly by any of the distribution agencies. Account must be taken of the ever changing employment of the fleet units and the fluctuating work load imposed on the elements of the supporting shore establishment. The available personnel must be distributed on a day-to-day basis to meet best the needs of the Naval Establishment. The Bureau does not distribute personnel to the various Naval Districts on a flat percentage basis. Consideration is given to conditions which have come to the attention of the Bureau and indicate that, at the moment, one District requires a higher percentage of its allowance than another Naval District.

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When the Navy has sufficient personnel available to match the lines of the Operating Force Plan, distribution is not such a difficult problem. However, that situation is very rarely met, especially during times of peace.

The Bureau of Naval Personnel is charged, by Navy Regulations, with the assignment to duty of all enlisted men. This duty includes the supply, distribution, transfer and special assignment of enlisted personnel to meet the requirements of the fleet and shore establishment.

Distribution of enlisted personnel, which originates at the Bureau level, is performed under the Assistant Chief of Naval Personnel for Operations. He has under him a Director of Enlisted Distribution. The Distribution Division is subdivided into the following sections:

1. Detailing
2. School assignments
3. Classification
4. Receiving stations
5. Services

The bulk of the distribution process is conducted under the Detailing Section.

The Bureau distributes enlisted personnel

The first of these is the fact that the
 system is not a simple one, but a complex one.
 It is a system of many parts, each of which
 has its own function, and all of which must
 work together in order to perform the overall
 function of the system. This is a very
 important point to remember, for it is the
 complexity of the system that makes it so
 difficult to understand and to control. It is
 this complexity that is the source of the
 many problems that arise in the operation
 of the system. It is this complexity that
 makes the system so interesting and so
 challenging. It is this complexity that
 makes the system so valuable. It is this
 complexity that makes the system so

to the major commands afloat and ashore, plus a few special activities, usually designated by the Chief of Naval Operations. In the interest of efficiency and flexibility, the Chief of Naval Personnel delegates the distribution of enlisted personnel to administrative commands. Thus the distribution of enlisted personnel follows the clearly established command channels defined by the Chief of Naval Operations.

For the Forces Afloat, the distribution channels originate with and are controlled by the Commanders in Chief of the Pacific and the Atlantic Fleets.

The Commander Service Force Pacific Fleet, under the direction of the Commander in Chief, Pacific Fleet, is charged with the assignment and distribution of enlisted personnel to the below listed activities. Commander Western Sea Frontier is the West Coast representative of Commander Service Force, Pacific, for distributing personnel, and is the command to whom personnel for the Pacific Fleet are normally made available from continental United States activities.

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List of activities under the Commander

Service Force Pacific Fleet:

1. First Task Fleet
2. U. S. Naval Forces Western Pacific
3. Air Force Pacific
4. Submarine Force Pacific
5. Outlying Bases
6. Naval Air Transport Service Pacific
7. Naval Air Transport Service Asiatic
8. Sea Frontier Forces
9. Pacific Reserve Fleet
10. U. S. Naval Forces Philippines
11. U. S. Naval Transport Service Pacific
12. Construction Battalion Activities
13. Fourteenth and Seventeenth Naval Districts
14. Training Command Pacific
15. Fleet Schools in the Pacific Area

The Commander Service Force, Atlantic Fleet, Subordinate Command, under the direction of the Commander in Chief, Atlantic Fleet, is charged with the assignment and distribution of enlisted personnel to the below listed activities:

1. Second Task Fleet
2. Naval Forces Eastern Atlantic and Mediter-
ranean Area

list of activities under the Commander

Service Force Pacific Area:

1. First Army Area
2. U.S. Navy Ocean Eastern Pacific
3. 1st Marine Division
4. Service Force Pacific
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3. Air Force Atlantic
4. Submarine Force Atlantic
5. Operation Development Force
6. Outlying Bases
7. Naval Air Transport Service Atlantic
8. Sea Frontier Forces
9. Naval Transport Service Atlantic
10. Construction Battalion Activities
11. Tenth and Fifteenth Naval Districts
12. Training Command Atlantic
13. Fleet Schools Atlantic, Outside U. S.
14. Atlantic Reserve Fleet

Distribution ashore is made by the Detailing Section, in the Bureau, direct to the various Bureaus, Boards and Offices in Washington. Also direct to all District Commandants, except the Tenth, Fourteenth, Fifteenth and Seventeenth Districts. Also direct to the following miscellaneous activities:

1. Commander Naval Air Training Command
2. Commander Naval Airship Training and Experiment Command

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3. Potomac River Naval Command
4. Severn River Naval Command
5. New Construction
6. Construction Battalion Training Center
7. Recruiting and Induction
8. Naval Missions and Attaches
9. Communication Security and Intelligence
10. Officer Procurement Offices
11. Commanding Generals, Quantico and Parris Island
12. Bureau Schools
13. Instructors Service Schools
14. Recruit Training Centers

The Bureau has established what is known as the "Shore Duty Eligibility List". The purpose of this list is to set up a method of rotation of duty ashore and afloat. It is very desirable to offer men, who have served long periods at sea, or at overseas bases, a tour of duty in the continental naval districts, river commands and naval air training commands in the United States. The guiding principle being that the man with the longest sea duty will be selected from the eligibility list for transfer to shore duty. Commanding officers have been directed to forward direct to the Bureau

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of Naval Personnel individual requests for shore duty, submitted by enlisted men who meet the following requirements:

1. Serving in the Regular Navy with two years obligated service remaining on their current enlistment or enlistment extended.
2. To be eligible for consideration, enlisted personnel must have served a minimum of four years continuously at sea or at overseas bases, except for aviation branch ratings who may submit applications for the shore duty eligibility list after three years of sea duty.

The requests should give three choices of shore duty, which should be indicated by naval district and desired locality within the district. The Bureau selects men from the shore duty eligibility list to fill vacancies in shore allowances. This system has not proved to be of equal advantage to all enlisted men. Due to the nature of jobs, there are many rates which have few billets ashore. The boatswains mate, water tender and machinist mate rating groups are good examples. At the present time, there are several thousand on the shore duty eligibility list, but most of them are Chief

Boatswains Mates, Chief Watertenders and Chief Machinist Mates, for which rates all the present shore billets are filled. The Bureau publicizes the fact that there are thousands of billets available for men in the critical rates and in the lower petty officer and non rated grades, but still does not receive many requests from this group. Because of this situation, the Bureau is forced to distribute new recruits direct from the Training Centers to some shore billets. This is a morale problem and one which merits much further study.

The Bureau has also instituted what is called a "Shore Duty Survey", in order to keep accurate data on shore duty billets available. Shore stations are required to submit direct to the Bureau a quarterly report of personnel who have been on continuous shore duty for a period of two years, or longer. In this manner the Bureau is able to maintain close contact with available shore duty vacancies and to increase the flow of personnel from sea to shore duty. This problem of shore duty may gradually improve with the increased number of shore billets which are being developed in the so-called new Navy.

Undoubtedly the Navy of the future will have increased need for more and more shore billets. The exact proportion of sea to shore billets is not available, but a recent check showed that shore billets were about equal in number to sea billets. The immediate problem is to find shore billets for those men in the surplus ratings, who have served at sea continuously for ten, fifteen or twenty years. In some instances, these men are willing to wait many years for a particular shore billet. The Bureau should inform these men of their status and give them some estimate as to when they can expect to get the billet in question, and perhaps advise them to accept some other billet which is then available.

Distribution by Administrative Commanders

Afloat

Distribution has been discussed at the Bureau level and in the shore establishment. To show how distribution by Administrative Commanders afloat is carried out, the process followed by the West Coast distribution agency, Commander Western Sea Frontier, and one of the Fleet Type Commanders will be next discussed.

As was previously stated, Commander Western Sea Frontier is the distribution agency for the Commander in Chief, Pacific Fleet, through Commander Service Force Pacific. The Detailing Section in the Bureau advises Commander Service Force Pacific and Commander Western Sea Frontier, usually about three months in advance, the number of men which will be allotted to that agency for distribution each month. Commander Service Force, Pacific, through the personnel accounting system, knows the approximate requirements of the various commands. He then directs Commander Western Sea Frontier to transfer the men to the various type commanders and other activities under his jurisdiction. Up to this point, the distribution figures are numbers, not rates or names.

The next step is made when the Detailing Section, in the Bureau, directs service schools, District Commandants and the Training Centers to transfer men, of specified ratings, to the nearest West Coast Receiving Station, for assignment by Commander Western Sea Frontier. As these men report in to the Receiving Station, they are reported to Commander Western Sea Frontier, by name, expir-

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ation of enlistment date, age, race, Navy job code number, rate and general classification test score. Distribution is then made by Commander Western Sea Frontier, as these men are made available, to the activities under his jurisdiction, using the requirements and demands previously submitted by these commands. The available men are assigned in accordance with percentages and priorities set up by Commander Service Force Pacific.

The Fleet Type Commanders, such as Commander Battleships-Cruisers, Pacific, are usually able to notify Commander Western Sea Frontier, in advance the ships under their command which are to receive the new men. The actual transfer is usually made direct to the ship by Commander Western Sea Frontier. In some cases, the Type Commander has the draft of men, assigned to him, sent to one of his unit commanders for further assignment within the unit. This is usually applicable to the Destroyer Divisions operating in the Western Pacific.

During World War II, distribution of personnel was somewhat simplified and expedited by establishing personnel pools in the forward areas. Personnel were supplied these pools by Commander Service Force Pacific, who in turn had been

assigned the personnel by the Detailing Section in the Bureau.

Ships in the forward area would submit requests and receive personnel by rate and number direct from the Service Force Representatives, who administered these pools. The Type Commanders were not involved in distribution at that time. This system proved very workable and undoubtedly speeded up, considerably, the distribution of personnel during the war. However, it cannot be followed in peace time. There has always been a shortage of personnel in peace time. The Type Commanders have had to be included in the system, in peace time, to control the quotas and allocations of the ships for which they are responsible. It is their responsibility to have the ships ready for scheduled operation and emergencies, therefore they must have some control of the personnel available to man their ships.

Distribution of Enlisted Personnel in the Army

There has been some contention that the Navy could improve its system of distribution by adopting some of the methods used by the Army and

assigned the personnel by the Detailing Section in

the interim.

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THE SHIPBOARD SYSTEM

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the Marine Corps. A brief description of the Army and the Marine Corps systems and a comparison with the Navy's system follows.

Due to the differences in the basic organizations of the Army and the Navy there are many differences in their personnel distribution systems. The Army is divided basically into the Army Ground Forces, the Technical Services and the Air Forces. In this discussion, the distribution of personnel in the Air Forces will not be covered. However, it is true that the Army Air Forces distribution system is quite similar to that of the Ground Forces.

In the Army Ground Forces, the armies are numbered for the Zones of the Interior. For example, we have the Sixth Army, with headquarters in San Francisco, and the Fourth Army with headquarters in Fort Sam Houston, Texas. The Commanding Generals of these Armies have more authority than similar commands in the Navy. These Army Commanders administer their armies in great detail and thus have close control of their personnel. The distribution of personnel within an Army is controlled entirely by the Army commander. There is more decentralization of distribution in the Army than in

the Navy.

The Army has what it calls "Class one" and "Class two" activities. The class one activities are installations, stations and units, such as Ft. McArthur, California; The Presidio at San Francisco; and Ft. Lewis, Washington. The class two activities are the service units such as the named general hospitals, overseas replacement depots and ordnance arsenals. The Army Commander is responsible for the distribution of personnel to the class one activities under his command, but the Chiefs of the Technical Services, in the War Department, are responsible for the distribution of personnel to the class two activities, of their respective branches, in all the various Army areas. To illustrate, the Commanding General of the Sixth Army is responsible for the distribution of personnel to the Post at Fort Lewis, but the Surgeon General of the Army is responsible for the distribution of personnel to the Madigan General Hospital, also located at Fort Lewis.

The Army's Assistant Chief of Staff for Personnel (G1) and its Adjutant General's office correspond somewhat to the Navy Deputy Chief of

Naval Operations for Personnel and the Bureau of Naval Personnel. The Army has placed its training function under its Assistant Chief of Staff for Operations and Training (G3), whereas in the Navy, training of personnel is carried out by the Bureau of Naval Personnel. This difference in organization is reflected very noticeably in the distribution of personnel to the service schools. The so-called "Bureau schools" of the Navy are operated directly under the Bureau and the quotas for these schools set up and administered by the Bureau. In the Army, G3 operates the schools and determines the quotas, while G1 furnishes the personnel.

Each Army tactical unit is assigned, at the War Department level, a table of Organization and Equipment. This table gives the military occupational specialty number and classification of all personnel, with their equipment, authorized for each activity. This table is controlled at the War Department level, and cannot be changed by an Army Commander. This table corresponds very closely to the Navy's allowance lists, but it gives more detailed information on classification of the personnel. Each Army Commander is assigned, at

the War Department level, a "Bulk Allotment of Personnel". The Army Commander assigns this bulk allotment, on the basis of his "Table of Distribution", to the class one activities under his jurisdiction, except the Tactical Units. In actual practice, distribution is generally made by the War Department to the Tactical Units, directly from the Replacement Training Centers. The Army Commanders request their "Bulk Allotment" replacements from the War Department and distribute them to their activities in accordance with the Tables of Distribution. The Army Commander has the final say on these Tables of Distribution, and they are not approved by the War Department. From the War Department level, distribution is made in accordance with the tables of Organization and Equipment, the Bulk Allotments of the Army Commanders and the Bulk Allotments to the Chiefs of the Technical Services and the Service schools, as specified by G3.

One very good feature of the Army distribution system is the feature of stabilization or permanence of station. It is not very unusual during peace time, for an enlisted man in the Army

the Department level, a "Joint Agreement of
 Personnel". The Army Commander retains this role
 although, on the basis of the "Table of Distribution
 of Personnel", the class and activities under his
 jurisdiction, except the tactical units, in actual
 practice, distribution is generally not in the
 hands of the commander but is decided directly
 by the Department training agency, usually
 the Department Training Center. This is in accordance
 with the Department Training Center and District
 Commander's activities in the exercise of his
 duties as Commander. A Joint Commander has
 the right to direct units of his organization and
 may not be approved in an emergency.
 The Department Training Center, District Training
 Center, and the Department Training Center have
 the right to direct units of their organization and
 may not be approved in an emergency.

to be stationed at one post for his entire Army enlistment. This feature is of considerable importance from the morale viewpoint. Perhaps the Navy can devise some way to give more permanence of station in peace time, too. The Navy's problem is much more complex since sea duty and permanence of station are in direct opposition.

It seems quite logical that the Army's procedure of establishing, in the field, the Tables of Distribution for their local activities could be used advantageously by the Navy. The District Commandant should be given an over-all allowance by the Bureau, but he should establish his own local allowances in accordance with his local mission and ever changing situations.

Distribution of Marine Corps Personnel

The distribution of enlisted men in the Marine Corps has some features which are considerably different from both the Navy and the Army systems. Being a smaller organization, it is possible to give more personal attention to the individual enlisted man. In quite a few cases, the man's request as to the type and location of his duty assignment can be given consideration.

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In general, the Marine recruits east of the Mississippi go to the Recruit Depot at Parris Island, South Carolina, while those west of the Mississippi go to the Recruit Depot at the Marine Corps Base at San Diego, California. After basic training in these depots, they are sent either to New River, North Carolina, or to Camp Pendleton, California, for advanced training along combat lines.

During World War II, these two commands organized the combat teams and replacement battalions by including specialists with the trained recruits. These specialists were trained at the Marine Barracks, Quantico, Virginia; at New River, North Carolina; at the Marine Base, San Diego; and at Camp Pendleton. Upon formation of the units, either replacement or tactical, they were staged through Camp Pendleton and then trans-shipped overseas from San Diego, San Pedro, or San Francisco, their destination being the various units of the Fleet Marine Force, as determined by the Commanding General, Fleet Marine Force, stationed in the Forward area.

Fleet Marine Force distribution centers were maintained at various stations in the Pacific,

in general, the entire population of the
the population of the country is fairly
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such as Pearl Harbor, New Caledonia, Guadalcanal, Saipan, and Okinawa. Upon arrival of the unit overseas, men of the replacement battalions were distributed by name and specification serial number as the immediate needs dictated. The marine's specification serial number corresponds to the Navy's job code number. The organized combat units were distributed intact, as conditions warranted. The Marine replacement battalion contained a percentage of all the so-called 'specialists', such as engineers, artillerymen, scouts, snipers, radio-men, and cooks.

Upon return from overseas, men passed through the West Coast Reclassification and Redistribution Center at the Marine Corps Base, San Diego. These men, after being re-classified, were assigned some continental station for a period of at least six months. Each man was assigned, as far as possible, to the station selected by him, and in addition he was given a thirty day furlough. In general, it was possible to carry out the above policy.

All of the above pertains to the distribution of Marine Corps personnel during World War II.

• 1957 •

The distribution system in peace time is essentially the same, except that the units are smaller.

Distribution on the east coast and to stations in the Caribbean, Panama, and to Europe, is made directly by the Commandant of the Marine Corps in Washington. The Commanding General of the Fleet Marine Force Atlantic, also receives personnel for distribution, within his Force, directly from Washington.

Distribution on the west coast has been delegated to the Commanding General, Fleet Marine Force, Pacific, for all the units of his Force and to the Commanding General, Department of the Pacific for all other stations and units on the west coast, in Alaska and in the Pacific area, except China. The Department of the Pacific has administrative jurisdiction over Marines in the Eleventh, Twelfth and Thirteenth Naval Districts, not including the Fleet Marine Force. The Marine Corps Headquarters has delegated practically all enlisted distribution functions to the Department of the Pacific in the area covered by those Districts.

Recently the Reclassification and Redistribution Center was moved from San Diego to San

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and to the Commanding General, Department of the

Pacific for all other stations and units on the

west coast, including all the units of his force,

except those of the Department of the Pacific and

those of the Department of the Pacific in the

Philippines, Irian, and the various naval districts,

and the First Marine Force. The Marine

Force, Pacific, also receives personnel for distribution

from the Department of the Pacific and the Department

of the Pacific in the Philippines, Irian, and the

Francisco, and placed directly under the Department of the Pacific. The present policy is to rotate men periodically in the outlying bases, such as Guam, Okinawa and Hawaii, and to return them to the States, after a two year tour. The returning personnel pass through the reclassification and redistribution center and are ordered to the various continental stations of their choice, for a tour of duty at least six months. After a man has served within the continental limits for six months, he is eligible for duty overseas. These overseas replacements are controlled by the Marine Corps Headquarters. The Department of the Pacific makes up an overseas replacement draft from the new recruits assigned by Headquarters, and by requisitioning men from the various stations under its jurisdiction. The enlisted man, due to go overseas, is first granted all accumulated leave, up to sixty days, before he is ordered outside of the United States. This, in effect, alerts the man for overseas duty, and is a very fine morale factor.

Considered as a whole, the Marine Corps distribution system is more centralized than either the Navy or Army system. Actually, all distribution

is handled directly from Marine Corps Headquarters, except that delegated to the two Marine Force Commanders and to the Department of the Pacific. The Department of the Pacific is a feature entirely unique for the Marine Corps. The policy of using this command, almost exclusively, for distribution of personnel on the west coast has many very desirable features. Like the other two branches of the Armed Forces, distribution of aviation personnel is controlled entirely and separately by the Marine Corps Air Forces. Also, in the Marine Corps, all supply or quartermaster personnel are distributed exclusively by the Paymaster General of the Marine Corps. This policy appears to have some undesirable features.

Conclusion

It has been shown how personnel accounting and classification are essential for distribution of personnel. The purpose of personnel accounting and classification is to furnish the data upon which distribution is controlled. There is a great loss of man power in the Navy due to men being on leave, in transit between stations, in hospitals and in prisons. The number in transit between

stations constitutes the greatest loss, but it could be greatly reduced if proper accounting and classification were conducted all down the line. Theoretically, perfect accounting and classification would mean that the number of men at receiving stations would be reduced to zero. The Bureau does not approve of frequent transfers or of transfers made without regard to the best interests of the service. It has been found by experience that frequent transfers deprive the individual of a sense of personal interest and responsibility. However, all else being equal, due consideration should be given to the individual requests for duty on particular ships or in certain localities.

As previously stated there are many complex problems in connection with distribution of personnel. From the viewpoint of a commanding officer of a ship or station, the Bureau of Naval Personnel's ultimate assignment is to man a ship or station. Procurement, selection, classification, accounting and training of personnel are preliminary steps in the accomplishment of this assignment. The Commanding Officer is not concerned with the administrative machinery of the Bureau. He

wants the personnel, in accordance with his assigned allowance, necessary to operate his command. He wants men of proper calibre and in proper quantity to carry out his mission. To him the Bureau is in the business of manning ships and stations and is not just a distribution agency.

This is indeed a very difficult problem at the present time, due to the shortage of trained personnel. Ships are operating with about eighty per cent of their allowed personnel. In many cases, the shortage of trained personnel in critical rates, such as machinist mates, electricians mates, storekeepers, radarmen and yeomen, has been the primary reason for putting ships in a reserve status. The rapid demobilization, immediately after the war, stripped the Navy of its trained personnel to such an extent that it has been extremely difficult to distribute personnel, so that the Fleet can continue to operate, even on a very reduced scale.

Possibly there are still too many men assigned to shore stations. The roll-up of our advanced bases has not yet been completed, and has reached the stage now where the personnel to conduct the roll-up have been so reduced that the process

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 fifty per cent of their allowed personnel. In
 many cases, the shortage of trained personnel is
 so great that, even on equipped ships, electricians
 and other personnel are being used as substitutes.
 The primary reason for this shortage is a shortage
 of personnel in the training schools. This is
 due to the fact that the training schools are
 not receiving enough personnel to meet the demand.
 The reason for this is that the training schools
 are not receiving enough personnel to meet the demand.
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 are not receiving enough personnel to meet the demand.

has been further slowed. The Navy has been reluctant to reduce radically the number of operating ships, but has been forced to place many ships out of commission, in order to have sufficient personnel to continue to operate. It appears that the proper place to make sacrifices should be the shore establishment and not the operating forces. Every effort is being made to train men, both ashore and afloat, to fill the vacancies in these critical ratings. The service schools must continue to get the best of the recruits for these schools. The forces afloat must make some sacrifice, in order that eligible men may be sent ashore to these schools and thus gradually build up these critical rates.

The Bureau has recently instituted a policy of returning school graduates to the ship or station from which they came. This policy was adopted at the request of the forces afloat and should be of considerable assistance in establishing some permanence of personnel, and also encourage commanding officers to select good candidates for the schools. In-Service training must continue to be utilized to the maximum extent,

has been further allowed. The Navy has been re-
luctant to reduce materially the number of operating
ships, but has been forced to place many ships out
of commission, in order to save sufficient per-
centage to continue to operate. It appears that
for proper place to make sacrifices should be the
more reassignment and not for operating losses.
Every effort is being made to train men, both
aboard and ashore, to fill the vacancies in some
critical points. The service schools and training
at the cost of the service for the schools.
The service school must make sacrifices, in
order that training may not be done ashore for
the schools and the generally fill up there
other ways.

A second and present situation is being
a new ship being ordered and the old ship being
replaced. The Navy has been forced to place many
ships out of commission, in order to save sufficient
percentage to continue to operate. It appears that
for proper place to make sacrifices should be the
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Every effort is being made to train men, both
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consistent with the availability of competent officer and petty officer instructors.

The General Classification Test scores of the recruits, being accepted by the Navy today, are considerably lower than those accepted during the war. The Navy is not getting many men with scores of fifty, fifty-five or sixty, these days. This is another immediate personnel problem with which distribution is involved. The situation has deteriorated to such an extent that it is very probable that the Navy, in a few more months, will not have new men who are qualified to train for its petty officer billets. Someone has said that the only thing that can save the Navy now is a real economic depression throughout the country. It is almost impossible to get high calibre men to enlist in the Navy while they can get jobs and salaries in civilian life which are not only much easier but also pay considerably more. One possible solution and one in which the Bureau is vitally interested, is the proposed Universal Military Training legislation, which the present Congress has under discussion. If this legislation is passed, the Navy will be allotted its share of personnel to be trained and it is believed that

The General Classification Test scores of officers and staff officer instructors, enlisted with the service file, of competent character, being accepted by the Navy today, are considerably lower than those accepted during the war. The war is not adding any new men to the ranks of fifty-fifty-five or sixty years old. It is probable that the war will have been accepted to their own satisfaction. The situation is improved in many respects and it is very probable that the war will have been accepted to their own satisfaction. The situation is improved in many respects and it is very probable that the war will have been accepted to their own satisfaction.

many high calibre men will choose to remain in the Navy and make it a career.

Another possible solution, which warrants further research and development, is the possibility of enacting legislation now for total mobilization of the whole resources of the country, in event of another war. Such a law was enacted after World War I, and was commonly known as the "M Day Plan". Just prior to World War II, this law was revoked for some unknown reason. The Armed Forces had worked out all their mobilization plans, based on this law. Under this plan the whole country, with all its manpower and other resources, would be a part of the Armed Forces. In World War II, we gradually worked around to complete mobilization, but this was done in spite of numerous difficulties and many individuals profitted by our confusion. It was very unfair for one man to give up his civilian job, at a high salary, to join the Armed Forces at a much lower salary; while others took advantage of the war to line their pockets by staying out of service. There should be no distinction, in time of war; everyone should be a part of the Armed Forces. If this type of law could be enacted now, it

would be a very strong factor in maintaining world peace. Foreign countries would have much more respect for the United States and would be less apt to start a war. Countries do not start wars unless they have every reason to expect to win them. To get back to our personnel distribution problem; the Armed Forces would be considered as a very important part of the average man's life. Not as some luxury maintained by the "war mongers" for their own profit. In other words, the whole country would consider itself a part of the Armed Forces and would be willing and anxious to serve for a period of training and perhaps even make it his career, if he felt adjusted to that type of life. If a man knows that he is apt to be in the front lines, in event of war, he will be anxious to learn how to fight, in order to save his own life. It will be hard to distinguish front lines in any future war. It seems evident that total mobilization will be a fact; therefore, we should organize our system of total mobilization and get it on the books now. It would aid considerably in the solution of our various personnel problems. All of this may seem a bit ethereal, but it can be accomplished; the country would support such legislation today.

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BIBLIOGRAPHY

BIBLIOGRAPHY

Books

- Bingham, W. V. Aptitudes and Aptitude Testing.
New York: Harper and Brothers, 1942
- Freeman, F. F. Individual Differences, the Nature
and Causes of Variation in Intelligence
and Special Abilities. New York: Henry
Holt, 1934
- Gilliland, A. R. and Clark, E. L. Psychology of
Individual Differences. New York: Prentice
Hall, 1939.
- Kimball, D. S. and Kimball, D. S., Jr. Principles
of Industrial Organization. New York:
McGraw Hill, 1939.
- Scott, W. D., Clothier, R. C., Matthewson, S. B.,
Spriegel, W. R. Personnel Management.
New York: McGraw Hill, 1941.

U.S. Government Publications and Documents

- Instructions for the Navy Personnel Accounting
System (NavPers 15842) Washington, D.C.
Navy Department, 1946.
- Manual of Organization Charts, Bureaus and Offices
of the Navy Department (Navexos P-63)
Washington, D. C., Navy Department, 1947.
- Bureau of Naval Personnel Manual. Washington, D.C.:
Navy Department 1940.
- Manual of Enlisted Navy Job Classifications
(Navpers 15105). Washington, D.C.: Navy
Department, 1945.
- Guide to Enlisted Classification (Navpers 15780).
Washington, D.C.: Navy Department, 1947.
- The Bureau of Naval Personnel Information Bulletin
(All Hands - Navpers O) Washington, D.C.:
Navy Department, March, 1947.

Books

1. James, W. V. Statistics and Scientific Inference.
New York: McGraw-Hill, 1937.
2. Freeman, J. F. Individual Differences, the Nature
and Causes of Variation in Intelligence
and Social Abilities. New York: Holt,
1934.
3. Freeman, J. F. and James, W. V. Psychology of
Individual Differences. New York: Holt,
1931.
4. James, W. V. and Freeman, J. F. Principles
of Educational Measurement. New York:
McGraw-Hill, 1937.
5. James, W. V. and Freeman, J. F. Educational
Measurement. New York: McGraw-Hill, 1931.
6. James, W. V. and Freeman, J. F. Educational
Measurement. New York: McGraw-Hill, 1931.
7. James, W. V. and Freeman, J. F. Educational
Measurement. New York: McGraw-Hill, 1931.
8. James, W. V. and Freeman, J. F. Educational
Measurement. New York: McGraw-Hill, 1931.
9. James, W. V. and Freeman, J. F. Educational
Measurement. New York: McGraw-Hill, 1931.
10. James, W. V. and Freeman, J. F. Educational
Measurement. New York: McGraw-Hill, 1931.

1940-1941

1940-1941

1940-1941

BIBLIOGRAPHY (Continued)

U.S. Naval Training Bulletin (Navpers 14949).
Washington, D.C.: Navy Department, December 1946.

Bureau of Naval Personnel Circular Letter 167-46.
"Assignment and Distribution of Enlisted Personnel", Washington, D.C. Navy Department, 18 July, 1946

Bureau of Naval Personnel Circular Letter 327-45.
"Enlisted Personnel, Reestablishment of Shore Duty Eligibility List", Washington, D.C., Navy Department, 31 October, 1945.

Miscellaneous Publications and Papers

IBM Machine Methods of Accounting. New York: IBM Corporation, 1936.

Personnel Accounting Procedures and Use of Machine Records. Bay Area Officers School Notes - Prepared by Captain R. D. Jones, U.S. Army, Presidio of San Francisco, May 1947.

Problems of Enlisted Distribution. Lecture given by Captain B. Schumm, U.S. Navy, Director of Enlisted Distribution Division, Bureau of Naval Personnel, June 1947.

Report of an Advisory Committee of Naval Reserve Officers on the Subject of Billet Analysis, Personnel Classification and Qualifications. Prepared for the Bureau of Naval Personnel, June 1947. Lt. Comdr. Clifford Houston, U.S.N.R., Chairman.

(Continued)

U.S. Naval Personnel Manual (Revised 1945).
Washington, D.C.: Navy Department, December
1945.

Manual of Naval Personnel Circular Letter 157-45.
Assignment and Classification of Military
Personnel, Washington, D.C.: Navy Depart-
ment, 1 July, 1945.

Manual of Naval Personnel Circular Letter 237-45.
Classification, Assignment of
Personnel, Washington, D.C.: Navy Depart-
ment, 21 October, 1945.

Publications and Papers

10. Leading Methods of Accounting. New York: Mac-
millan, 1937.

Personnel Accounting Procedures and Use of Machine
Records. By Fred C. Lester. Naval Affairs -
Department of Defense, D. C. Jones, D. C.
1947, Division of Personnel, 1947.

Records of Military Affairs. Section given by
Major J. C. Jones, D. C. Jones, Director of
Military Affairs, Division of Personnel, 1947.
1947, Personnel, 1947.

Manual of Naval Personnel Circular Letter 157-45.
Assignment and Classification of Military
Personnel, Washington, D.C.: Navy Depart-
ment, 1 July, 1945.

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Personnel accounting.

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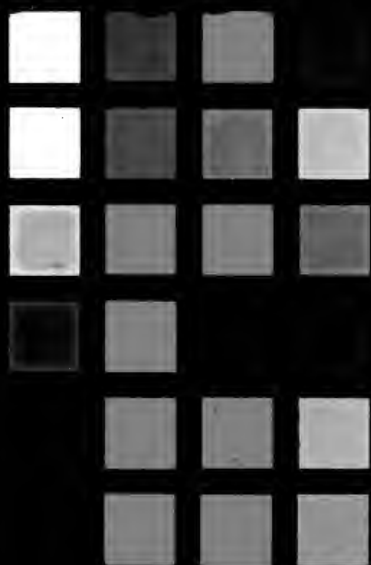
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